

DEPARTMENT OF THE AIR FORCE
Headquarters US Air Force
Washington, DC 20330-1030

CFETP 3D0X2
Parts I and II
01 January 2011

AFSC 3D0X2

CYBER SYSTEMS OPERATIONS



BASIC



SENIOR



MASTER

CAREER FIELD EDUCATION AND TRAINING PLAN

ACCESSIBILITY: Publications and forms are available on the e-publishing website at www.e-publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

**CYBER SYSTEMS OPERATIONS
AFSC 3D0X2
CAREER FIELD EDUCATION AND TRAINING PLAN**

TABLE OF CONTENTS

PART I

Preface	1
Abbreviations/Terms Explained	2
Section A - General Information	9
Purpose of the CFETP	
Use of the CFETP	
Coordination and Approval of the CFETP	
Section B - Career Field Progression and Information	11
Specialty Description	
Cyber Systems Operations Apprentice/Journeyman/Craftsman (3D032/3D052/3D072)	
Operations Superintendent	
Chief Enlisted Managers (CEM)	
MAJCOM Functional Manager (MFM) for Cyber Operations	
Air Force Career Field Manager (AFCFM) for the Cyber Operations Career Field	
Skill/Career Progression	
3D0X2 Career Path Chart	
Training Decisions	
Community College of the Air Force Academic Programs	
Career Field Path	
3D0X2 Cyber Systems Operation Career Path Table	
Section C - Skill Level Training Requirements	20
Purpose	
Specialty Qualification Requirements	
Apprentice (3-Level) Training	
Journeyman (5-Level) Training	
Craftsman (7-Level) Training	
Superintendent (9-Level) Training	
Section D - Resource Constraints	23
Purpose	
Apprentice (3-Level) Training	
Journeyman (5-Level) Training	
Craftsman (7-Level) Training	
Section E - Transition Training Guide	23

OPR: 336 TRS/TRR

Approved By: SAF/A6OD

Supersedes CFETP 3D0X2, dated 1 August 2009 w/Chg 1, dated 1 November 2009

Pages: 71

Part II

Section A - Specialty Training Standard	24
Section B - Course Objective List	66
Section C - Support Materials	66
Air Force Job Qualification Standards and Air Force Qualification Training Packages	
Section D - Training Course Index	66
Purpose	
Air Force In-Residence Courses	
Air University Courses	
Exportable Courses	
Section E – MAJCOM-Unique Requirements	67

**CYBER SYSTEMS OPERATIONS
AFSC 3D0X2
CAREER FIELD EDUCATION AND TRAINING PLAN**

PART I

Preface

1. The changing Command, Control, Communications, Computer, and Intelligence (C4I) and Air and Space Expeditionary Aerospace Forces (AEF) environments require vision, preparation, and attention to ensure people have the right skills and tools to deliver the C4I capabilities and the support required by the war fighter in meeting the Air Force mission of today and the vision of the future. Declining resources, expanding diversity of mission, and ever-changing technologies in the Air Force are impacting the availability of our most valuable resource--people. These factors will continue to exist in the future, making it essential for the workforce to be effectively and efficiently trained to perform duties within each skill level of an Air Force Specialty (AFS). To meet the challenges of tomorrow, the Air Force must place a greater emphasis on career field training. This Cyber Systems Operations Career Field Education and Training Plan (CFETP) is a comprehensive core training document that identifies life-cycle training/education requirements, support resources, and minimum core task requirements for the 3D0X2 specialty. The plan is a "training road map" for the career field. It provides personnel a clear career path to success and makes career field training identifiable, measurable, and budget defensible.

2. This CFETP is a comprehensive education and training document that identifies life cycle education and training requirements, training support resources and minimum core task requirements for this specialty. The CFETP documents the career field training program and consists of two parts. Management uses both parts in conjunction with Training Business Area (TBA) to plan, manage and control training within the career field. NOTE: Civilians occupying associated positions will use Part II to support duty position qualification training.

2.1. Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan; Section B identifies career field progression information, duties and responsibilities, training strategies and career field path; Section C associates each level with specialty qualifications (knowledge, education, experience, training and other); Section D indicates resource constraints (e.g., funds, manpower, equipment, facilities); and Section E identifies transition training guide requirements for SSgt through MSgt.

2.2. Part II includes the following: Section A: identifies the Specialty Training Standard (STS) and includes duties, tasks, TRs to support training, AETC-conducted training, wartime course and core task and correspondence course requirements. Section B: contains the Course Objectives List (COL) and training standards supervisors will use to determine if Airmen satisfied training requirements; Section C: identifies available support materials (e.g., Qualification Training Package, which may be developed to support proficiency training); Section D identifies a training course index supervisors can use to determine resources available to support training. Included here are both mandatory and optional courses; and Section E identifies MAJCOM-unique training requirements supervisors can use to determine additional training required for the associated qualification needs. At unit level, supervisors and trainers will use Part II to identify, plan and conduct training commensurate with the overall goals of this plan.

3. Use of the guidance provided in this CFETP provides the foundation for effective and efficient training for individuals in this career field at the appropriate points in their careers. This plan enables the Air Force to train today's work force for tomorrow's jobs.

Abbreviations/Terms Explained

This section provides a common understanding of the terms that apply to the Cyber Systems Operations Career Field and Education Training Plan.

Advanced Training (AT). A formal course of training that leads to a technical or supervisory level of an AFS. Training is for selected Airmen at the advanced level of an AFS.

Air and Space Expeditionary Force (AEF). The AEF is the Air Force's methodology for organizing, training, equipping, and sustaining rapidly responsive air and space forces to meet defense strategy requirements. Through the AEF, consisting of enabler and tempo banded capabilities the Air Force supports defense strategy requirements using a combination of both permanently assigned and rotational (allocated) forces.

Air and Space Expeditionary Task Force (AETF). The AETF is the Air Force's primary warfighting organization and the means by which we present forces to a Joint Forces Commander (JFC). When established, AETFs will form up under the designated Air Force component headquarters.

Air Education Training Command (AETC). Responsible for the recruiting, training and education of Air Force personnel. AETC also provides pre-commissioning, professional military and continuing education.

Air Force Career Field Manager (AFCFM). Representative appointed by the respective HQ USAF Deputy Chief of Staff or Under Secretariat to ensure that assigned Air Force specialties are trained and utilized to support Air Force mission requirements.

Air Force Enlisted Classification Directory (AFECD). The official directory for all military enlisted classification descriptions, codes, and identifiers. Establishes the occupational structure of the Air Force enlisted force. The occupational structure is flexible to permit enlisted personnel to specialize and develop their skills and abilities while allowing the Air Force to meet changing mission requirements. Individual enlisted personnel have a joint responsibility with commanders and supervisors at all levels to fully develop their abilities consistent with Air Force needs and within the established patterns of specialization.

Air Force Job Qualification Standard (AFJQS). A comprehensive task list that describes a particular job type or duty position. Supervisors use the AFJQS to document task qualification. The tasks on AFJQSs are common to all persons serving in the described duty position.

Air Force Qualification Training Package (AFQTP). An instructional course designed for use at the unit to qualify or aid qualification in a duty position, program, or on a piece of equipment. It may be printed, computer-based, or other audiovisual media.

Air Force Specialty (AFS). A group of positions (with the same title and code) that require common qualifications.

Air Force Tactics, Techniques and Procedures (AFTTP). Air Force technical training publication. Source: http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf

Air University Associate-to-Baccalaureate Cooperative (AU ABC). Allows Airmen to turn a Community College of the Air Force Associates Degree into a Bachelors Degree from an accredited university. The ABC program has established a partnership with various civilian higher-education institutions to offer four-year degree opportunities via distance learning. The participating schools will accept all of the credits earned by Airmen who have attained a CCAF degree and apply them to a Bachelors degree related to their Air Force specialty.

Air University/A4L. The result of a reorganization of Air Force Institute for Advanced Distributed Learning (AFIADL); provides access to the Extension Course Institute.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive core training document that identifies: life-cycle education and training requirements; training support resources; and

minimum core task requirements for a specialty. The CFETP aims to give personnel a clear path and instill a sense of industry in career field training. CFETPs are officially posted at <http://www.e-publishing.af.mil/>

Certification. A formal indication of an individual's ability to perform a task to required standards.

Certifying Official. A person assigned by the commander to determine an individual's ability to perform a task to required standards.

Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) Task Qualification Training (TQT). CBRNE TQT ensures personnel maintain proficiency in performing mission-critical tasks in a CBRNE environment. See AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*, and AFMAN 10-2602, *Nuclear, Biological, Chemical and Conventional (NBCC) Defense Operations and Standards*, for additional information/requirements.

Chief Enlisted Manager (CEM) Code. CEM codes identify all chief master sergeant positions in the Enlisted Classification Structure. They also identify chief master sergeants who, through extensive experience and training, have demonstrated managerial ability to plan, direct, coordinate, implement, and control a wide range of work activity. Some managerial duties and responsibilities that are common to all chief enlisted managers are: managing and directing personnel resource activities; interpreting and enforcing policy and applicable directives; establishing control procedures to meet work goals and standards; recommending or initiating actions to improve functional operation efficiency; planning and programming work commitments and schedules; developing plans regarding facilities, supplies, and equipment procurement and maintenance.

Collaboration. Collaboration is the interaction among two or more individuals encompassing a variety of behaviors, including communication, information sharing, coordination, cooperation, problem-solving and negotiation.

Collaborative Tools. Collaborative tools consist of various web-based technologies including advanced white boarding, groupware, and facilitation. Collaborative capabilities assist significantly with managing information throughout its life cycle and enable Air Force members to perform most office-oriented and operational communication tasks from their desktops.

Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR). Integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to support a commander's exercise of command and control through all phases of the operational continuum. C4 systems include base visual information support systems. http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf

Computer Based Training (CBT). A forum for training in which the student learns via a computer terminal. It is an especially effective training tool that allows the students to practice applications while they learn.

Content Management (CM). A set of processes and technologies supporting the evolutionary life cycle of digital information. This digital information is often referred to as content or, to be precise, digital content. Digital content may take the form of text, such as documents, multimedia files, such as audio or video files, or any other file type that follows a content life cycle that requires management.

Continuation Training. Additional advanced training that exceeds the minimum upgrade training requirements and emphasizes present or future duty assignments.

Core Task. A task AFSCs identify as a minimum qualification requirement for everyone within an AFSC, regardless of duty position. Core task may be specified for a particular skill level or in general across the AFSC. Guidance for using core task can be found in the applicable CFETP narrative.

Course Objective List (COL). A publication derived from initial/advanced skills Course Training Standard (CTS), identifying the tasks and knowledge requirements and respective standards provided to achieve a 3-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201, *Air Force Training Program*.

Course Training Standard (CTS). A standard developed for all courses not governed by an STS, including specialized training packages and computer-based training courses.

Critical Tasks. Critical Tasks are tasks that require specific training and certification above and beyond other tasks. Tasks may be defined as critical either through AFI, Technical Orders, higher headquarters, or at any level in the unit.

Data Management. The process of planning, coordinating, sharing, and controlling organizations' data resources (AFPD 33-3, *Information Management*).

Document Management (DM). The process of managing documents through their life cycle; from inception through creation, review, storage, dissemination, and archival or deletion. Document management can also be a database system to organize stored documents, or a search mechanism to quickly find specific documents. (AFPD 33-3, *Information Management*)

Direct Reporting Unit (DRU). Air Force subdivisions directly subordinate to the CSAF. A DRU performs a mission that does not fit into any of the MAJCOMs. A DRU has many of the same administrative and organizational responsibilities as a MAJCOM (Example of a DRU: USAF Academy).

Duty Position Tasks. The tasks assigned to an individual for the position currently held. These include, as a minimum, all core tasks that correspond to the duty position as directed by the AFCFM or MFM, and tasks assigned by the supervisor.

Education and Training Course Announcement (ETCA). Located at <https://etca.randolph.af.mil>, the ETCA contains specific MAJCOM procedures, fund cite instructions, reporting instructions, and listings for those formal courses the MAJCOMs or FOAs conduct or manage. The ETCA contains courses the Air Force and reserve forces conduct or administer and serves as a reference for the Air Force, DoD, other military services, government agencies, and security assistance programs.

Enterprise Information Management (EIM). Encompasses a set of strategies for organizational management of all aspects of enterprise data as information assets. The proper models, data architecture, application architecture, and integration vision enables using the "enterprise information asset" for strategic analysis, customer-centricity, performance and productivity analytics, and personalization, eventually providing a means for transitioning from an operational, line-of-business oriented application environment to an intelligent, learning, and agile organization.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade Airmen in each skill level of a specialty.

Enterprise. The entire range of communications/networking within garrison and tactical realms to include voice, video, data, imagery and sensor.

Expeditionary Aerospace Force (EAF). The EAF concept is how the Air Force will organize, train, equip, and sustain itself by creating a mindset and cultural state that embraces the unique characteristics of aerospace power – range, speed, flexibility, precision – to meet the national security challenges of the 21st Century.

Exportable Training. Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

Field Operating Agency (FOA). FOAs are subdivisions of the Air Force directly subordinate to a headquarters US Air Force functional manager. An FOA performs field activities beyond the scope of any of the MAJCOMs. The activities are specialized or associated with an Air Force-wide mission (Example of a FOA: is the Air Force Weather Agency).

Field Training. Technical, operator, and other training that either a field training detachment or field training team conducts at operational locations on specific systems and associated direct-support equipment for maintenance and aircrew personnel.

Functional Area Manager (FAM). The individual accountable for the management and oversight of all personnel and equipment within a specific functional area to support the operational planning and execution. Responsibilities include, but are not limited to, developing and reviewing policy; developing, managing, and maintaining Unit Type Codes (UTC); developing criteria for and monitoring readiness reporting; force posturing; and analysis. At each level of responsibility (Headquarters Air Force, MAJCOM, Air Component, FOA, DRU, and Unit), the FAM should be the most highly knowledgeable and experienced

person within the functional area and have the widest range of visibility over the functional area readiness and capability issues.

Functional Manager (FM). An individual assigned collateral responsibility for training, classification, utilization, and career development of enlisted personnel. AFSC Functional Managers exist at MAJCOM, NAF and base level. (AFI 33-101, *Commanders Guidance and Responsibilities*)

Global Command and Control System (GCCS). An automated information system designed to support deliberate and crisis planning with the use of an integrated set of analytic tools and the flexible data transfer capabilities. GCCS will become the single C4I system to support the warfighter from foxhole to command post.

Global Combat Support System – Air Force (GCSS-AF). An enterprise infrastructure program established to develop, integrate, and deploy combat support information capabilities. The mission of GCSS-AF is to provide timely, accurate, and trusted Agile Combat Support (ACS) information to Joint and Air Force commanders, their staffs, and ACS personnel at all ranks and echelons, with the appropriate level of security needed to execute the Air Force mission throughout the spectrum of military operations. GCSS-AF is the means by which ACS functional systems will be modernized and integrated to improve business processes supported on a single robust network-centric infrastructure. In addition to integrating combat support applications, GCSS-AF also provides core enterprise services such as a common user presentation through the AF Portal, Enterprise Information Management (Workflow, Records Management, Document Management, Knowledge Management, and Collaboration), and an enterprise data warehouse.

Global Information Grid (GIG). The globally interconnected, end-to-end set of information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating and managing information on demand to warfighters, policy makers, and support personnel. The GIG includes all owned and leased communications and computing systems and services, software (including applications), data, security services, and other associated services necessary to achieve Information Superiority. The GIG supports all Department of Defense, National Security, and related Intelligence community missions and functions (strategic, operational, tactical, and business), in war and in peace. The GIG provides capabilities from all operating locations (bases, posts, camps, stations, facilities, mobile platforms, and deployed sites). The GIG provides interfaces to coalition, allied, and non-DOD users and systems.

Go/No-Go. The “Go” is the stage at which a trainee has gained enough skill, knowledge, and experience to perform the tasks without supervision, meeting the task standard. “No-Go” is the stage at which the trainee has not gained enough skill, knowledge, and experience to perform task without supervision, does not meet task standard.

Individual Training Plan (ITP). Using AF Form 623, *On-the-Job Training Record*, or other approved records (e.g., Training Business Area (TBA)). The AF Form 623 reflects past and current qualifications, and is used to determine training requirements. It is intended to be a complete history of past training and current qualifications. Supervisors will ensure all documentation is accurate and comprehensive.

Information Life Cycle. Typically characterized as creation or collection, processing, dissemination, use, storage, protection, and disposition. (DoDD 8000.01, *Management of the Department of Defense Information Enterprise*).

Information Management (IM). The planning, budgeting, manipulating, and controlling of information throughout its life cycle. Joint Publication 3-0, *Joint Operations*, further defines IM as the function of managing an organization’s information resources by the handling of knowledge acquired by one or many different individuals and organizations in a way that optimizes access by all who have a share in that knowledge or a right to that knowledge.

Information Resources Management (IRM). The process of managing information resources to accomplish agency missions and to improve agency performance (e.g., the reduction of information collection burdens on the public). (AFPD 33-1, *Information Resources Management*)

Initial Skills Training. A formal school course that results in an AFSC 3-skill level award for enlisted or mandatory upgrade training to qualified officers. (AFI 36-2201, *Air Force Training Program*)

Instructional System Development (ISD). A deliberate and orderly (but flexible) process for planning, developing, implementing, and managing instructional systems. It ensures personnel are taught in a cost efficient way to become educated on the knowledge, skills, and abilities essential for successful job performance.

Knowledge Based Operations (KBO). KBO is the Air Force approach for managing information and intellectual capital assets, such as people, processes and tools. Having timely, accurate, and relevant information is critical to build the Air Force's information superiority.

Knowledge Management (KM). The handling, directing, governing, or controlling of natural knowledge processes (acquire/validate, produce, transfer/integrate knowledge) within an organization in order to achieve the goals and objectives of the organization. KM seeks to make the best use of the knowledge available to an organization, creating new knowledge, and increasing awareness and understanding in the process. KM can also be defined as the capturing, organizing, and storing of knowledge and experiences of individual workers and groups within an organization and making this information available to others in the organization. (AFPD 33-3, *Information Management*)

Knowledge Training. Training used to provide a base of knowledge for task performance. It may also be used in lieu of task performance when the training capability does not exist. Learning gained through knowledge rather than hands-on experience. (AFI 36-2201, *Air Force Training Program*)

Major Command (MAJCOM). A MAJCOM represents a major Air Force subdivision having a specific portion of the Air Force mission. Each MAJCOM is directly subordinate to HQ USAF. MAJCOMs are interrelated and complementary, providing offensive, defensive, and support elements.

Master Task Listing (MTL). A comprehensive list (100%) of all tasks performed within a work center and consisting of the current CFETP or AFJQS and locally developed AF Forms 797 (as a minimum). Should include tasks required for deployment and/or UTC requirements.

Master Training Plan (MTP). Employs a strategy for ensuring the completion of all work center job requirements by using a MTL and provides milestones for task, CDC completion, and prioritizes deployment/UTC, home station training tasks, upgrade, and qualification tasks.

Occupational Survey Report (OSR). A detailed report showing the results of an occupational survey of tasks performed within a particular AFSC.

On-the-Job Training (OJT). Hands-on, over-the-shoulder training conducted to certify personnel in both upgrade (skill level award) and job qualification (duty position) training.

Proficiency Training. Additional training, either in-residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

Qualification Training. Hands-on, task performance based training designed to qualify Airmen in a specific duty position. This training program occurs both during and after the upgrade training process and is designed to provide skills training required to do the job.

Records Management. The planning, controlling, directing, organizing, training, promoting, and other managerial activities involved in records creation, maintenance and use, and disposition in order to achieve adequate and proper documentation of the policies and transactions of the Federal Government and effective and economical management of agency operations. (AFPD 33-3, *Information Management*)

Resource Constraints. Resource deficiencies (such as money, facilities, time, manpower, and equipment) that preclude desired training from being delivered.

Service Oriented Architecture (SOA). A services oriented architecture (SOA) environment makes it easier and faster to build and deploy information capabilities that directly serve the needs of the Air Force. SOA is an information technology environment where the following occur: Mission and business processes are supported by information assets. Information assets are delivered to consumers through content delivery services. Content delivery services and other services interact to support process threads or to deliver information assets. Core services, such as infrastructure and presentation services, are

independent of the content delivery services. Net-centric protocols and services allow federating and re-using both content delivery and core services for multiple users, domains, and information sources.

Service Oriented Enterprise (SOE). An enterprise in which technologies, infrastructure, governance, policies, funding and processes of the organization operate with the context of sharing information and capabilities in the enterprise. It provides a means of achieving IT agility and flexibility to support rapidly evolving mission processes and changing goals and objectives. An SOE includes an Enterprise Architecture and follows a component-based capability development methodology to produce modular, reusable and easily adaptable, loosely-coupled, software and services.

Specialty Training Package and COMSEC Qualification Training Package. A composite of lesson plans, test material, instructions, policy, doctrine and procedures necessary to conduct training. These packages are prepared by AETC, approved by National Security Agency (NSA) and administered by qualified communications security (COMSEC) maintenance personnel.

Specialty Training Requirements Team. A meeting chaired by the AFCFM with MAJCOM FMs, AETC Training Managers, Subject Matter Experts (SME) and Air Force Occupational Measurement Squadron (AFOMS) in attendance. Typically held three months prior to a Utilization and Training Workshop (U&TW) to finalize any CFETP changes or enlisted classification directory descriptions.

Specialty Training Standard (STS). An Air Force publication that describes an Air Force specialty in terms of tasks and knowledge that an Airman in that specialty may be expected to perform or to know on the job. Also identifies the training provided to achieve a 3-, 5-, 7-, or 9-skill level within an enlisted AFS. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an Air Force Specialty Code (AFSC) are taught in formal schools and correspondence courses.

Standard. An exact value, a physical entity, or an abstract concept established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results. It is a fixed quantity or quality.

System Training Plan (STP). A living document that explains what training is needed for a system and how to obtain the training.

Task Module (TM). A group of tasks performed together within an AFS that require common knowledge, skills, and abilities. TMs are identified by an identification code and a statement.

Total Force. All collective components (active, reserve, guard, and civilian elements) of the United States Air Force.

Training Advisory Group (TAG). Chaired by the AFCFM and attended by the MAJCOM, selected DRU and FOA functional managers. The TAG sets training goals and priorities, reviews training programs and evaluates emerging training technologies. The group meets, as required, to prioritize training product development.

Training Business Area (TBA). A web-based training application that provides Air Force war fighters with global, real-time visibility into qualifications, certifications and training status of communications professionals. TBA supports base, wing and work center training management activities by automating business processes and capabilities to eliminate paper-based practices. The system centralizes management of training task data, provides user access to CFETPs/JQs and increases security through a single AF Portal log on. TBA replaced the Integrated Maintenance Data System (IMDS) as the mandated automated training tool for maintaining OJT records for communication and information personnel.

Training Capability. The ability of a unit or base to provide training. Authorities consider the availability of equipment, qualified trainers, and study reference materials, and so on in determining a unit's training capability.

Training Planning Team (TPT). Comprised of the same personnel as a U&TW, TPTs are more intimately involved in training development and the range of issues examined is greater than in the U&TW forum.

Training Requirements Analysis (TRA). A detailed analysis of tasks for a particular AFSC to be included in the training decision process.

Training Setting. The type of forum in which training is provided (formal resident school, on-the-job, field training, mobile training team, self-study, etc.).

Unit Type Code (UTC). A five-character alphanumeric code identifying a specific force package of personnel and/or equipment. The UTC is the means for linking logistics and manpower details within a unit type and is used to communicate force data. The UTC represents a wartime capability designed to fill a valid contingency requirement.

Upgrade Training. Training that leads to the award of a higher skill level.

Utilization and Training Pattern. A depiction of the training provided to and the jobs performed by personnel throughout their tenure within a career field or AFS. There are two types of patterns: 1) Current pattern, which is based on the training provided to incumbents and the jobs to which they have been and are assigned; and 2) Alternate pattern, which considers proposed changes in manpower, personnel, and training policies.

Utilization and Training Workshop (U&TW). A forum of the AFCFM, MAJCOM Functional Managers, subject matter experts (SME), and AETC training personnel that determines career ladder training requirements.

Wartime Tasks. Those tasks that must be taught when courses are accelerated in a wartime environment. In response to a wartime scenario, these tasks will be taught in the 3- level course in a streamlined training environment. These tasks are only for those career fields that still need them applied to their schoolhouse tasks.

Workflow. A series of steps necessary for the initiation, tracking and delivery of services or outputs with the capability to cut across existing or future organizational boundaries. Furthermore, web-based workflow products allow electronic coordination, staffing, and task management of documents and files. They are relational to an electronic version of the Staff Summary Sheet (SSS) and other AF/DoD forms used for routing/collection of information. Automation provides the capability to suspense and track correspondence through the workflow process and provides action officers and document originators status on their packages. Provides users the capabilities to comply with structured electronic workflow processes and the flexibility to create/develop ad hoc workflow courses of actions. Future use of standardized EIM tools will enhance usability and eliminate legacy methods.

Section A - General Information

1. Purpose of the CFETP. This CFETP provides the information necessary for AFCFMs, MAJCOM Functional Managers (MFM), commanders, training managers, supervisors and trainers to plan, develop, manage and conduct an effective and efficient career field training program. The plan outlines the initial skills, upgrade, qualification, advanced and proficiency training those individuals in AFSC 3D0X2 should receive in order to develop and progress throughout their careers. Initial skills training is the AFS specific training an individual receives upon entry into the AF or upon retraining into this specialty for award of the 3-skill level. This training is provided by the 336th Training Squadron (TRS) at Keesler AFB, MS. Upgrade training identifies the mandatory courses, task qualification requirements, Career Development Course (CDC) completion and correspondence courses required for award of the 5-, 7-, or 9-skill level. Qualification training is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills and knowledge required to do the job. Advanced training is formal specialty training used for selected airmen. Proficiency training is additional training, either in-residence or exportable advanced training courses, or on-the-job training provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade. The CFETP has several purposes, some of which are:

- 1.1. Serves as a management tool to plan, develop, manage, and conduct a career field training program. Also, ensures that established training is provided at the appropriate point in an individual's career.
- 1.2. Identifies task and knowledge training requirements for each skill level in the specialty and recommends training throughout each phase of an individual's career.
- 1.3. Lists training courses available in the specialty, identifies sources of the training, and provides the training medium.
- 1.4. Identifies major resource constraints that impact implementation of the desired career field training program.

2. Use of the CFETP. The CFETP is maintained by the 3D0XX Air Force Career Field Manager (AFCFM), SAF/A6OD. MAJCOM FMs and AETC review the plan annually to ensure currency and accuracy and forward recommended changes to the AFCFM. Using the list of courses in Part II, they determine whether duplicate training exists and take steps to eliminate/prevent duplicate efforts. Career field training managers at all levels use the plan to ensure a comprehensive and cohesive training program is available for each individual in the career ladder.

- 2.1. AETC training personnel develop/revise formal resident and exportable training based upon requirements established by the users and documented in the STS. They also develop procurement and acquisition strategies for obtaining resources needed to provide the identified training.
- 2.2. MAJCOM FMs ensure their training programs complement the CFETP mandatory initial skill and upgrade requirements. They also identify the needed AFJQSS/AFQTPs to document unique upgrade and continuation training requirements. Requirements are satisfied through OJT, resident training, contract training, or exportable courseware/courses. MAJCOM developed training to support this AFSC must be included into this plan.
- 2.3. 81 TRSS/TSQ Qualification Training Flight (Q-Flight) personnel develop training packages (AFJQSS/AFQTPs) based on requests submitted by the MAJCOMs and according to the priorities assigned by the AFCFM.
- 2.4. Unit level training managers and supervisors manage and control progression through the career field by ensuring individuals complete the mandatory training requirements for upgrade specified in this

plan and supplemented by their MAJCOM. The list of courses in Part II is used as a reference for planning continuation or career enhancement training.

2.5. Submit recommended CFETP improvements/corrections to the AFSC Training Manager at 336 TRS/TRR, 108 Phantom Drive, Keesler AFB MS 39534-2235 or call DSN 597-5327.

3. Coordination and Approval of the CFETP. The AFCFM is the approval authority. MAJCOM representatives and AETC training personnel coordinate on the career field training requirements. The AETC training manager initiates an annual review of this document by AETC and MAJCOM functional managers to ensure the CFETP's currency and accuracy by using the list of courses in Part II to eliminate duplicate training.

Section B - Career Field Progression and Information

4. Specialty Description. This information supplements that presented in the AFECDC.

4.1. Cyber Systems Operations Apprentice/Journeyman/Craftsman (3D032/3D052/3D072).

4.1.1. Specialty Summary. Supervises and performs cyber systems operations and executes associated information systems support programs, both in garrison and at deployed locations. Performs system administration on, Command, Control, Communications, Computer (C4), Intelligence, and various functional area platforms. Core competencies include: server operating systems, database administration and web technologies. Administers: server-based operating systems, distributed applications, network storage, messaging, and application monitoring, required to integrate cyber systems and applications. Supports identification, reconnaissance and exploitation of vulnerabilities while enhancing capabilities within cyber environments to achieve desired affects. **Related DoD Occupational Subgroup: 153100.**

4.1.2. Duties and Responsibilities:

4.1.2.1. Provides core services by designing, configuring, installing, and managing data services at the operating system and server application level. Provides directory services utilizing dynamically assigned IP addresses, domain name server, storage area network, and electronic messaging resources. Manages secure authentication methods utilizing public key infrastructure (PKI) technologies and procedures. Standardizes user privileges and system settings using automated deployment tools such as group policy objects (GPO) system management server. Implements security fixes, operating system patches, and antivirus software. Develops, tests, and implements local restoral and contingency operations plans. Processes and reviews C4 systems requirement documentation, telecommunication service requests, status of acquisition messages, and telecommunication service orders. Performs strategic and budget planning for networks.

4.1.2.2. Performs system resource management, manages system accounts, performs system-wide backups and data recovery, and load and capacity planning and management. Administers: classified and unclassified message traffic via electronic mail systems, database operations, implements conversions, and investigates problems in database environment. Ensures continuing systems operability by providing ongoing optimization and problem solving support. Applies computer security policies to safeguard systems and information. Categorizes, isolates, and resolves system problems. Performs fault isolation by validating, isolating, correcting faults, and verifying service restoral with customers. Processes, documents and coordinates resolution of trouble calls from lower support echelons. Processes scheduled and authorized outages. Submits outage reports in response to unscheduled outages.

4.1.2.3. Implements security updates and patches to include: Information Assurance Vulnerability Assessments (IAVA), C4 Notice to Airman (C4 NOTAM), Time Compliance Network Orders (TCNO), Combat Information Transport System (CITS), Time Compliance Technical Order (TCTO), operating system patches, and antivirus software. Implements and enforces national, DoD, and Air Force security policies and directives. Performs proactive security functions to deter, detect, isolate, contain, and recover from information system and network security intrusions. Performs system sanitation resulting from Classified Message Incidents (CMIs).

4.1.2.4. Performs and supports information warfare operations within strictly controlled parameters. Researches latest system threats to develop and tests tactics, techniques and procedures (TTPs) for both defensive and offensive information operations. Employs developed TTPs on Air Force and DoD computer networks to exploit enemy information systems and defend against hostile information operations. Identifies, analyzes, targets, and exploits adversary's network operations and systems within specifically defined guidelines and rules of engagement.

4.1.2.5. Reviews and implements C4 systems requirements. Performs strategic and budget planning for systems hardware and software. Coordinates and implements system service level agreements and memorandum of understanding with user agencies.

4.2. Operations Superintendent.

4.2.1. Specialty Summary. Manages system analysis and design, programming, systems operation and maintenance, resource management and security management. Directs activities for installing, maintaining, repairing, overhauling, deploying, and modifying cyberspace systems and equipment platforms. In addition, manages and directs network warfare operations in garrison and at deployed locations by performing duties to develop, sustain, and enhance network and electromagnetic capabilities to defend national interests from attack and to create effects in the cyberspace domain to achieve national objectives. Ensures personnel are trained, equipped, and available to perform the assigned mission. **Related DoD Occupational Subgroup: 153200.**

4.2.2. Duties and Responsibilities. Plans and organizes operations and software activities. Plans and supervises system installation, and evaluates facilities layout. Evaluates performance standards. Designs and develops organizational structures, and determines equipment, training, and supplies required for systems implementation and support. Interacts with customers to promote customer satisfaction. Establishes tactics, techniques and procedures. Executes operations plans to ensure positive control of assigned forces. Evaluates operational readiness of communications, sensors, intrusion detection, and related support equipment.

4.2.2.1. Directs activities responsible for system analysis and design, programming, operations and maintenance, security, systems management, technical support, and resource management. Implements and interprets policies, directives, and procedures.

4.2.2.2. Establishes training requirements. Establishes training programs to meet local knowledge and certification requirements and to enhance professional awareness of technology.

4.2.2.3. Inspects and evaluates compliance with directives. Evaluates, rates, and prepares reports. Recommends and implements corrective action for improved methods and procedures. Evaluates effectiveness of equipment usage, systems performance, customer service, supplies, and system scheduling, processing, and maintenance.

4.2.2.4. Plans, programs, and develops budget inputs to ensure resource availability for operational requirements.

4.2.2.5. Manages development functions. Helps functional users define requirements. Recommends automated methods to enhance resource use. Supervises functional user requirements translation into automated systems capabilities. Organizes software development teams that use software methodologies. Oversees database design to optimize collecting and retrieving information. Supervises test and evaluation efforts to determine errors in logic, information flow, and system performance. Organizes and participates in implementation and conversion. Ensures continued interface between functional users, and programming and operations personnel for implemented systems. Ensures compliance with standards for systems software and documentation.

4.3. Chief Enlisted Managers (CEM). Manages system analysis and design, programming, systems operation and maintenance, resource management and security management. Directs activities for installing, maintaining, repairing, overhauling, deploying, and modifying cyberspace systems and equipment platforms. In addition, manages and directs network warfare operations in garrison and at deployed locations by performing duties to develop, sustain, and enhance network and electromagnetic capabilities to defend national interests from attack and to create effects in the cyberspace domain to achieve national objectives. Ensures personnel are trained, equipped, and available to perform the assigned mission. Communicates and coordinates with MAJCOM Functional Manager. This position serves at the operational level. Two unique CEM positions are:

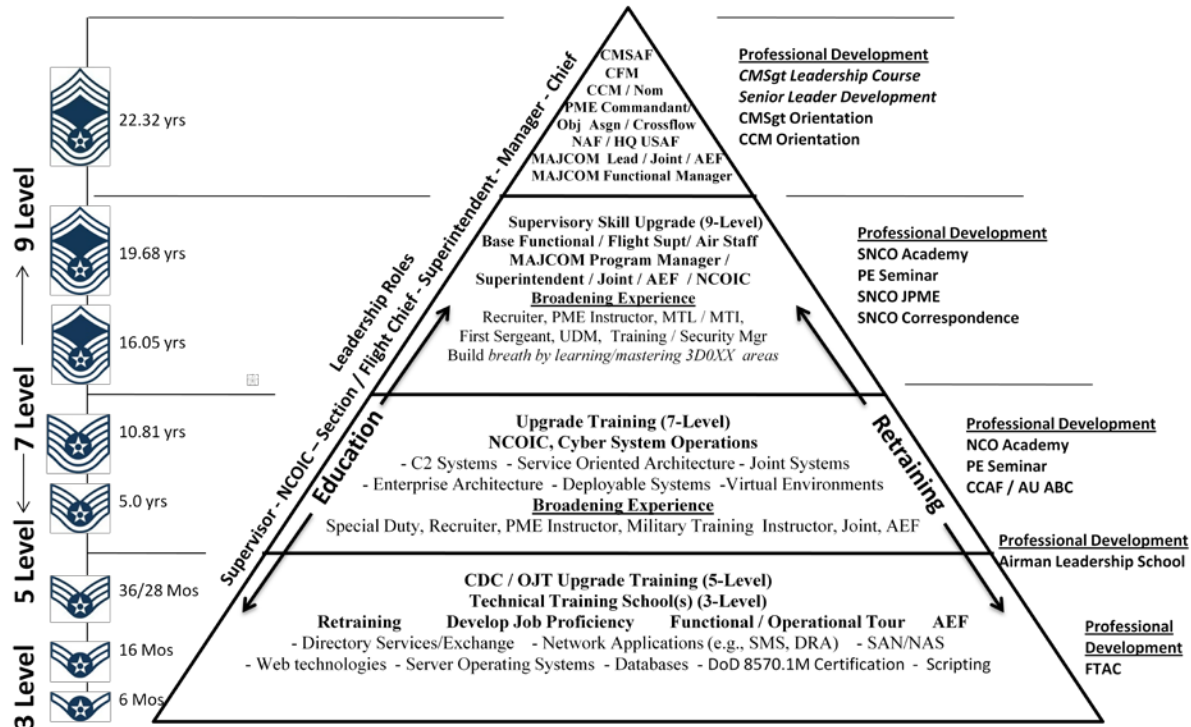
4.4. MAJCOM Functional Manager (MFM) for Cyber Operations. (AFI 36-2201, *Air Force Training Program*; AFI 36-2101, *Classifying Military Personnel (Officers and Airmen)*; *Air Force Enlisted Classification Directory*). Appointed by the MAJCOM Director of Communications (A6) or equivalent.

Advises the MAJCOM/A6 and staff on 3D0X2 utilization and training issues. Serves as the MAJCOM voting representative during career field Utilization and Training Workshops. Assists in gathering inputs and data to complete enlisted grade allocation for Career Progression Group (CPG) reviews. Provides guidance to subordinate units on 3D0X2 personnel issues. Assists with the dissemination of information regarding Air Force and career field policies, plans, programs, and procedures to subordinate units. Assists in identifying qualified subject matter experts to help with the development of Specialty Knowledge Tests (SKT) and the Career Development Course (CDC). Acts as the primary MAJCOM reviewer on CDC training and classification waiver request packages. Coordinates on all MAJCOM 3D0XX staffing and manpower issues.

4.5. Air Force Career Field Manager (AFCFM) for the Cyber Operations Career Field. (AFPD 36-22, *Air Force Military Training*; AFI 36-2201, *Air Force Training Program*; AFI 36-2101, *Classifying Military Personnel (Officers and Airmen)*; Air Force Enlisted Classification Directory). Appointed by the Air Force Chief of Warfighting Integration and Chief Information Officer (SAF/CIO A6). Advisor to the SAF/CIO A6 on all matters affecting the Cyber Operations career fields. Communicates directly with MFMs and AETC Training Managers to disseminate Air Force and career field policies and program requirements. Ensures development, implementation, and maintenance of the CFETP. Serves as the chairperson for the U&TW and uses it as a forum to determine and manage career field education and training requirements, as they apply to mission needs. Possesses final authority to waive CFETP requirements, including CDCs. Assists AETC training managers and course supervisors with planning, developing, implementing, and maintaining all AFSC-specific training courses. Assists in the development of AFSC-related manpower standards.

5. Skills and Career Progression. Adequate training is essential to timely progression of personnel from apprentice to superintendent skill levels and plays an important role in the Air Force's ability to accomplish its mission. Everyone involved in training must do their part to plan, manage, and conduct effective training programs. The guidance provided in this part of the CFETP and the 3D0X2, [CYBER SYSTEMS OPERATIONS CAREER PATH](#) table will ensure individuals receive viable training at appropriate points in their career. Airmen should also review career progression information tailored to their grade and AFSC on My Enlisted Development Plan (MyEDP), accessible through the Air Force Portal (AFP). Mandatory requirements for upgrade training to each skill level are covered in [Section C](#).

3D0X2 Career Path Chart



6. Training Decisions. This CFETP was developed to encapsulate an entire spectrum of training requirements for the Cyber Systems Operations career field, using a building block approach (simple to complex). Included in this spectrum was the strategy of when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training.

6.1. Proficiency Training. This training is job qualification for an assigned duty position. Additional qualification training becomes necessary when personnel transfer to another duty position, the unit mission changes, a new personnel program comes on board, or any time changes in techniques or procedures occur.

6.1.1. The first 14 task headers of the STS were added and are considered common core to the entire cyber support career field. Each 3DXXX AFSC has the same 1-14 tasks, although each task is not core to each AFSC. Dashed tasks are available in TBA for individual training plans (ITP) in the event an Airman performs the tasks. Tasks were also added to build the Common Core 3DX5X CDC. Task headers 15 through 25 are focused directly on the knowledge operations management career field.

6.1.2. The 81 TRSS/TSQ (Q-Flight) develops AFJQSS/AFQTPs to support tasks relating to Cyber Operations and Systems, functions, and duties. Completion of AFJQSS/AFQTPs is mandatory by duty position for personnel in upgrade or qualification training.

7. Community College of the Air Force (CCAF) Academic Programs. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity for all enlisted members to obtain an Associate in Applied Science degree. In order to be awarded the degree must be completed before the student separates from the Air Force, retires, or is commissioned as an officer. In addition to its associate's degree program, CCAF offers the following:

7.1. Occupational Instructor Certification. The College offers the Occupational Instructor Certification to instructors teaching full time in a CCAF affiliated school. To qualify, instructors must complete a 3 semester hour Instructor Methodology course, a 12 semester hour Teaching Internship, have two years teaching experience from date of Teaching Internship completion, hold an associate or higher degree, and be recommended by their commander/commandant.

7.2. The Computer Science Technology (0CYY) program applies to the 3D0X2 career field.

7.2.1. Degree Requirements: Individuals must hold the 5-skill level at the time of program completion.

	Semester hours
Technical Education	24
Leadership, Management, and Military Studies.....	6
Physical Education	4
General Education	15
Program Electives	15
	Total 64

7.2.2. Technical Education (24 semester hours): A minimum of 12 semester hours of technical core subjects and courses must be applied and the remaining semester hours will be applied from technical core/technical elective subjects and courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject/course must be approved in advance by the technical branch of the CCAF Administrative Center.

7.2.3. Leadership, Management, and Military Studies (LMMS)(6 semester hours): Professional military education (PME) and/or civilian management courses accepted in transfer and/or by testing credit. See CCAF General Catalog for application of civilian management courses.

7.2.4. Physical Education (4 semester hours): Satisfied upon completion of basic military training.

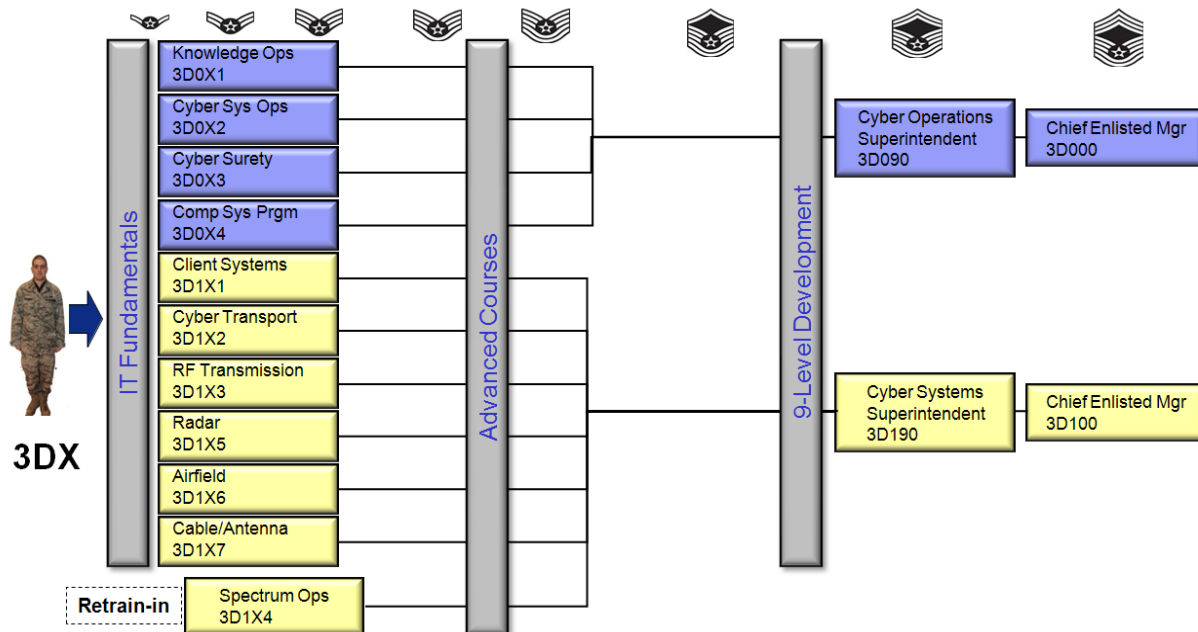
7.2.5. General Education (15 semester hours): Courses must meet the criteria for application of courses to the General Education requirement and be in agreement with the definitions of applicable General Education subjects/courses as outlined in the CCAF General Catalog.

7.2.6. Program Elective (15 semester hours): Courses applying to technical education, LMMS or general education requirements; natural science courses meeting general education requirement application criteria; foreign language credit earned at Defense Language Institute or through the Defense Language Proficiency Test; maximum 6 Semester Hours of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment.

7.3. See the current CCAF General Catalog for details regarding the Associates of Applied Science in Computer Science Technology. The catalog is available at your education office or from <http://www.au.af.mil/au/ccaf/>.

7.4. Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an AETC instructor should be actively pursuing an associate degree. A degreed faculty is necessary to maintain CCAF's accreditation through the Southern Association of Colleges and Schools.

8. Career Field Path. The following summarizes career progression and personnel allocations across the career ladder. 3D0XX personnel maintain their individual AFSC identifiers through the rank of MSgt. Upon promotion to SMSgt, 3D0X1/3D0X2/3D0X3/3D0X4 merge to become a 3D090. 3D090 compete for the rank of Chief to become a 3D000. Specific demographic information is available on the Web at <http://www.afpc.randolph.af.mil/demographics/>.



3D0X2 CYBER SYSTEMS OPERATIONS CAREER PATH				
	GRADE REQUIREMENTS			
<i>Education and Training Requirements</i>	<i>Rank</i>	<i>Average Sew-On</i>	<i>Earliest Sew-On</i>	<i>High Year Of Tenure (HYT)</i>
BMTS				
Apprentice Technical School (3-Skill Level)	Amn	6 months		
Upgrade To Journeyman (5-Skill Level) MANDATORY - Minimum 12 months on-the-job training (OJT). - Minimum 9 months OJT for retrainees. - Complete appropriate CDC. - Specific AFJQSs/AFQTPs for assigned location. - Completion of 5-Level Training Track. CBTs, if available. OPTIONAL AETC Supplemental training courses as determined by MAJCOM.	A1C SrA	16months 3 years	28 months	10 Years
Airman Leadership School - Must be a SrA with 48 months time in service or be a SSgt Selectee. - Resident graduation is a prerequisite for SSgt sew-on (Active Duty Only).	Trainer - Qualified and certified to perform the task to be trained. - Must attend formal AF Training Course. - Recommended by the supervisor.			
Upgrade To Craftsman (7-Skill Level) MANDATORY - Minimum rank of SSgt.	SSgt	5 years	3 years	20 Years

3D0X2 CYBER SYSTEMS OPERATIONS CAREER PATH				
	GRADE REQUIREMENTS			
Education and Training Requirements	Rank	Average Sew-On	Earliest Sew-On	High Year Of Tenure (HYT)
<ul style="list-style-type: none"> - 12 months OJT. - 6 months OJT for retrainees. - Complete Craftsman course, if applicable. - Completion of AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook - Specific AFJQSs/AFQTPs for assigned location. - Completion of 7-Level Training Track. CBTs, if available. <p>OPTIONAL</p> <p>AETC Supplemental training courses as determined by MAJCOM.</p>				
	<p>Certifier</p> <ul style="list-style-type: none"> - Must be a SSgt with a 5-skill level or civilian equivalent. - Must attend formal AF Training Course. - Be a person other than the trainer except for AFSCs, duty positions, units, and/or work centers with specialized training standardization and certification requirements. 			
<p>Noncommissioned Officer Academy</p> <ul style="list-style-type: none"> - Must be a TSgt, MSgt Selectee, or MSgt. - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only). - ANG/AFRC SSgt or TSgt may attend in-residence or complete by correspondence course. 	<p>TSgt</p> <p>MSgt</p>	<p>11.4 years</p> <p>17.5 years</p>	<p>5 years</p> <p>8 years</p>	<p>22 years</p> <p>24 years</p>

3D0X2 CYBER SYSTEMS OPERATIONS CAREER PATH				
	GRADE REQUIREMENTS			
Education and Training Requirements	Rank	Average Sew-On	Earliest Sew-On	High Year Of Tenure (HYT)
USAF Senior NCO Academy - Must be a MSgt, SMSgt, or SMSgt Selectee. - Resident graduation is a prerequisite for SMSgt sew-on (Active Duty Only). Upgrade To Superintendent (9-Skill Level) MANDATORY - Minimum rank of SMSgt. - Completion of 9-Level Training Track. CBTs, if available. - Specific AFJQSS/AFQTPs for assigned location.	SMSgt	19.7 years	11 years	26 Years
CHIEF MASTER SERGEANT LEADERSHIP COURSE (CLC) Attendance is limited to Chief Master Sergeants and Chief Master Sergeant selects.	CMSgt	22.3 years	14 years	30 years

NOTE 1: Published sew-on times are Air Force averages. Refer to the Air Force Personnel Center's homepage to determine career field specific information:

<http://ask.afpc.randolph.af.mil/EProm/default.asp?prods3=5&prods2=2&prods1=1>.

NOTE 2: See Part II, Sections C and D for a list of AFJQSS/AFQTPs and AETC supplemental training.

NOTE 3: All core position tasks must be completed prior to upgrade.

Section C - Skill Level Training Requirements

9. Purpose. The various skill levels in the career field are defined in terms of tasks and knowledge requirements for each skill level in the Cyber Systems Operations field of the Cyber Operations career ladder. They are stated in broad, general terms and establish the standards of performance. Core tasks, knowledge items, and skill requirements for this specialty are identified in the STS, COL, CDCs, AFJQSS/AFQTPs, etc. Completion of the mandatory 3-level skill awarding course, CDCs, and applicable AFJQSS/AFQTPs define the Air Force core tasks for this specialty.

10. Specialty Qualification Requirements.

10.1. Apprentice (3-Level) Training.

KNOWLEDGE	System administration Database administration Operating systems administration Scripting Remote device configuration SOA (service oriented architecture) Application systems administration Web technology Configuration management Legal/ethics Techniques for solving operating system problems
EDUCATION	Completion of high school. Additional courses in computer and information systems technology is desirable. Security+ certification or equivalent is desirable.
TRAINING	Completion of the Cyber Systems Operation Apprentice course, E3AQR3D032 00BA (PDS Code Y41), See Part II, Section B for Course Objective List
EXPERIENCE	None required
OTHER	For award and retention of AFSCs 3D032, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Requires routine access to Top Secret material or similar environment. NOTE: Award of the 3-skill level without a completed SSBI is authorized provided an interim SSBI has been granted according to AFI 31-501.
IMPLEMENTATION	Attendance at the Cyber Systems Operation Apprentice course is mandatory for award of the 3-skill level unless waived by the 3D0XX AFCFM.

10.2. Journeyman (5-Level) Training.

KNOWLEDGE	All 3D032 knowledge qualifications apply to the 3D052 requirements Completion of the 3DX5X and 3D052 Career Development Courses
TRAINING	No mandatory AETC training courses are required for upgrade
EXPERIENCE	Qualification in and possession of AFSC 3D032 Cyber Systems Operations functions such as system operations, control, micro and multi-user technical support, system restoral, resource accounting, or security. Completion of all STS core tasks Completion of applicable AFJQSs/AFQTPs Completion of all local tasks assigned for the duty position.
OTHER	For award and retention of AFSCs 3D052, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Requires routine access to Top Secret material or similar environment.
IMPLEMENTATION	Entry into formal journeyman upgrade training is accomplished once individuals are assigned to their first duty station. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified. Use CDCs, CBTs and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

10.3. Craftsman (7-Level) Training.

KNOWLEDGE	All 3D052 knowledge qualifications apply to the 3D072 requirements. Work center Supervisory Roles and responsibilities Computer System Project Management Computer System Planning Deployment Management
TRAINING	No mandatory AETC training courses are required for upgrade Completion of 7-level training track CBTs if available Completion of AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook.
EXPERIENCE	Qualification in and possession of AFSC 3D052 Completion of all STS core tasks Completion of applicable AFJQSs/AFQTPs Completion of all local tasks assigned for the duty position
OTHER	For award and retention of AFSCs 3D072, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Requires routine access to Top Secret material or similar environment.
IMPLEMENTATION	Entry into OJT is initiated when individuals obtain the necessary rank and skill level. Qualification training is initiated anytime an individual is assigned duties for which they are not qualified. Use CDCs and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

10.4. Superintendent (9-Level) Training.

KNOWLEDGE	Resource Management Manpower and Organization Administrative Contract Management Training Management Software Maintenance Management Logistics Management Publications Management Records Management Base/Unit Functional Management Awards Programs
TRAINING	No mandatory AETC training courses are required for upgrade Completion of 9-level training track. CBTs, if available.
EXPERIENCE	Qualification in and possession of AFSC 3D0XX Directing functions such as systems analysis or design, software development, teleprocessing systems operations and maintenance.
OTHER	For award and retention of AFSCs 3D090, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional.
IMPLEMENTATION	Entry into OJT is initiated when individuals are selected for the rank of SMSgt. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified.

10.5. Training Sources.

10.5.1. AFSC specific training – 336 TRS, Keesler AFB, MS at <https://etca.randolph.af.mil/>

10.5.2. CDCs 3D0X2 are available for upgrade purposes through the unit training manager. For individual qualification and cross-utilization training, CDCs are ordered through the unit training office.

10.5.3. AFJQSS/AFQTPs are Air Force publications and are mandatory for use by personnel in upgrade or qualification training. They are developed by the 81 TRSS (Q-Flight), Keesler AFB, MS and may be downloaded from <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=20946>. Procedures for requesting development of AFJQSS/AFQTPs are contained in AFI 36-2233, *Air Force On-the-Job Training Products for Communications-Electronics Enlisted Specialty Training*. AFJQSS/AFQTPs are listed in Part II, Section C, of this CFETP.

Section D - Resource Constraints

11. Purpose. This section identifies known resource constraints that preclude optimal/desired training from being developed or conducted, including information such as cost and manpower. Included are narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training, the resources needed, and actions required to satisfy the training requirements.

12. Apprentice (3-Level) Training. There are no constraints.

13. Journeyman (5-Level) Training. There are no constraints.

14. Craftsman (7-Level) Training. There are no constraints.

Section E - Transition Training Guide

There are currently no transition training requirements. This area is reserved.

PART II

Section A - Specialty Training Standard

1. Implementation. This STS will be used for technical training provided by AETC for the 3-level class beginning 22 October 2009.
2. Purpose. As prescribed in AFI 36-2201, *Air Force Training Program*, and this STS:
 - 2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airman to perform duties in the 3-, 5-, and 7-skill level. Column 2 (Core Tasks) identifies, by asterisk (*), specialty-wide training requirements. NOTE: Core tasks are minimum task training requirements for upgrade to the 5-skill level.
 - 2.2. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. For initial certification or transcribing documentation complete the columns in accordance to AFI 36-2201.
 - 2.3. Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the correspondence course. See Air University catalog maintained at <http://www.au.af.mil/au/afiadl/> for current CDC listings.
 - 2.4. Qualitative Requirements. Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.
 - 2.5. Becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, *Individual Training Record* folder, and used according to AFI 36-2201, *Air Force Training Program*.
 - 2.6. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKT) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS Individual responsibilities are listed in chapter 1 of AFI 36-2605, *Air Force Military Personnel Testing System*. WAPS is not applicable to the Air National Guard or Air Reserve Forces.
3. Recommendations. Comments and recommendations are invited concerning the quality of AETC training. A Training Feedback Hotline has been installed for the supervisors' convenience. For a quick response to concerns, call our Training Feedback Hotline at DSN 597-4566, fax us at DSN 597-3790, or e-mail us at 81trg-tget@keesler.af.mil. Reference this STS and identify the specific area of concern (paragraph, training standard element, etc).

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

WILLIAM T. LORD, Lieutenant General, USAF
Chief of Warfighting Integration and
Chief Information Officer

Attachments:

1. IT Fundamentals Course Training Standard (CTS)
2. Specialty Training Standard (STS) 3D0

PREFACE

NOTE 1: Dashed items in this CTS are not part of the original CTS created at the March 2009 IT Fundamentals conference however, they are the specific objectives taught in the IT Fundamentals course designed to meet the CTS requirements.

NOTE 2: Unless otherwise stated, students may be allowed two assists from the instructor and still successfully achieve the proper level of proficiency. An instructor assist is anytime an instructor must intercede to provide guidance to a student which leads to a satisfactory completion of the objective or to prevent the student from continuing in a manner that will lead to an unsatisfactory conclusion, safety violation, or damage to equipment.

NOTE 3: All 3-level tasks will be trained if a wartime surge is ordered.

Proficiency Code Key		
	Scale Value	Definition: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (extremely limited)
	2	Can do most parts of the task. Needs only help on hardest parts. (partially proficient)
	3	Can do all parts of the task. Needs only a spot check of completed work. (competent)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (highly proficient)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (nomenclature)
	b	Can determine step-by-step procedures for doing the task. (procedures)
	c	Can identify why and when the task must be done and why each step is needed. (operating principles)
	d	Can predict, isolate, and resolve problems about the task. (advanced theory)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (facts)
	B	Can identify relationship of basic facts and state general principles about the subject. (principles)
	C	Can analyze facts and principles and draw conclusions about the subject. (analysis)
	D	Can evaluate conditions and make proper decisions about the subject. (evaluation)
Explanations * A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b) ** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC. X This mark is used alone in course columns to show that training is required but not given due to limitations in resources. NOTE: All tasks and knowledge items shown with a proficiency code are trained during wartime.		

1. ELECTRONICS SUPPORT SUBJECTS

- 1.1. Safety B
- 1.2. First Aid A

2. DIGITAL NUMBERING SYSTEMS (Internal Data Representation)

- 2.1. Conversions
- 2.1.1. Binary B
- 2.1.2. Hexadecimal B
- 2.1.3. Binary Coded Decimal A
- 2.2. Calculate Hexadecimal Numbers X

3. BASIC COMPUTER FUNDAMENTALS

- 3.1. Communications/Network Protocols:
 - 3.1.1. Connection Oriented Communication A
 - 3.1.2. Connectionless Oriented Communication A
 - 3.1.3. International Standards Organization (ISO) Open Systems Interconnect (OSI) Model A
 - 3.1.4. TCP/IP A
 - 3.1.5. Department of Defense (DoD) Standards Protocol A
 - 3.1.6. IPV4/IPV6 A
 - 3.1.7. Ports (IP) A
- 3.2. Network Theory/Components
 - 3.2.1. Components
 - 3.2.1.1. Component Principles B
 - 3.2.1.2. Central Processing Unit (CPU) A
 - 3.2.1.3. Computer memory A
 - 3.2.1.4. Input/output (I/O) Devices A
 - 3.2.1.5. Storage Devices A
 - 3.2.1.6. Peripherals (Printers, FAX, Scanners, etc.) A
 - 3.2.2. Network Types
 - 3.2.2.1. Wired (LAN, WAN, MAN) A
 - 3.2.2.2. Wireless A
 - 3.2.2.3. Virtual Private Network (VPN) A
 - 3.2.2.4. Video Teleconference A
 - 3.2.2.5. Topologies (Star, Ring, Bus, Hybrid, etc.) A
- 3.3. Data Terminal Equipment/Data Communications equipment (DTE/DCE)
 - 3.3.1. Modems A
 - 3.3.2. Converters A
 - 3.3.3. Gateways A
 - 3.3.4. Multiplexing
 - 3.3.4.1. Wave Division Multiplexing A
 - 3.3.4.2. Time Division Multiplexing A

3.3.4.3. Switches	A
3.3.4.4. Multiplexers	A
3.3.4.5. Bridges/Routers	A
3.3.4.6. Encryption/COMSEC Devices (Data and Voice)	A
3.3.4.7. Communications Mediums	A
3.4. Software	
3.4.1. Operating Systems (UNIX, Windows, LINUX, etc.)	A
3.4.2. Applications (Word, Excel, Power Point, Share Point, etc.)	A
3.4.3. Infectious and Malicious Software	A
4. CRYPTOLOGY (Bound & Unbound)	
4.1. Bulk Encryption	A
4.2. Information Encryption Techniques	A
4.3. Separation Requirements	A
5. NETWORK FAULT ISOLATION TECHNIQUES	
5.1. Network Error Detection	1a
5.2. Network Error Correction	1a
5.3. Network Flow Control	1a
5.4. Transmission Impairments	1a
5.5. Network Management Concepts and Responsibilities	B
6. CYBER SECURITY	
6.1. Cyber Vulnerabilities	A
6.2. Vulnerability Preventative Measures	A
6.3. Identity Management	A
6.4. Wireless Network Security	A
7. COMMUNICATIONS AND INFORMATION PROFESSIONALS	
7.1. Organizations	A
7.2. Communications Competencies	A
7.3. Expeditionary Communications	X
8. OPERATIONAL RISK MANAGEMENT (ORM) TR: AFIs 90-901, 91-301, 91-302; AFOSH STDs 91-50, 91-64	
8.1. ORM	A
9. PUBLICATIONS AND DIRECTIVES TR: AFIs 33-Series	
9.1. Department of Defense (DOD)	X
9.2. Air Force	X
9.3. Commercial/Vendor publications	X
9.4. DISA Publications	X
9.5. Technical Orders (TO)	A
9.6. Standard Installation Practices Technical Order (SIPTO)	A
9.7. Enterprise Information Architecture (EIA)/ Telecommunications Industry Association (TIA)	A
9.8. Military Standard (MIL STD)	X

10. LEGAL/ETHICS TR: USC TITLE 10, 18, 50; Joint Information Doctrine (Joint Pub 3-13); AF Information Operations Doctrine 2-5; Health Insurance Portability and Accountability Act (HIPA)

10.1. US Codes (e.g. Titles 10, 15, 18, 32, 50) (e.g. Constitutional Authority, legal aspects of rules of engagement, homeland defense, Posse Comitatus, US Charter Paradigm, Schmidt Analysis) A

10.2. Rules of Engagement (ROE)

10.2.1. Policy A

10.2.2. Security Tools A

10.2.3. Cyber Management Ethics A

10.2.4. System Monitoring A

10.3. Special Data Protection (i.e. sensitive personnel information) A

11. C4I SECURITY TR: ACP 122; AFDIR 33-303; AFIs 33-110, 33-129, 33-206, 33-219, 33-332; AFKAG-1&2; AFMAN 33-326; AFSSI 5021; DISAC 310-90-1; DOD 5200.1-R

11.1. Operations Security (OPSEC) TR: AFI 10-1101; AFPD 10-11

11.1.1. Definition X

11.1.2. Relationship of OPSEC to other security programs X

11.1.3. Vulnerabilities X

11.1.4. Critical Information X

11.2. Information Security TR: AFI 31-401; AFPD 31-4, 33-2

11.2.1. Information safeguards

11.2.1.1. Unclassified

11.2.1.1.1. Privacy Act (PA) A

11.2.1.1.2. For Official Use Only (FOUO) TR: AFSSI 5009 A

11.2.1.1.3. Sensitive Unclassified A

11.2.1.2. Classified A

11.3. Communications Security (COMSEC) TR: AFIs 33-211, 33-212; AFPD 33-2; AFI 31-401; AFPD 31-4

11.3.1. Definition A

11.3.2. Vulnerabilities A

11.3.3. Safeguarding Information A

11.4. Emission Security (EMSEC) TR: AFI 33-203; AFPD 33-2

11.4.1. Definition A

11.4.2. Notifications A

11.4.3. Vulnerabilities A

11.4.4. Protected Distribution System (PDS) A

11.5. Computer Security (COMPUSEC) TR: AFIs 33-202, 33-207; AFPD 33-2

11.5.1. Definition A

11.5.2. Vulnerabilities A

11.6. Physical Security TR: AFI 31-101; AFPD 31-1

11.6.1. Definition A

11.6.2. Secure Area Access Management X

11.6.3. Facility Security Requirements X

11.6.4. Classified Material Control	
11.6.4.1. Storage	A
11.6.4.2. Transport	A
11.6.4.3. Handling	A
11.6.4.4. Destruction	X
11.6.4.5. Classified Waste	X
11.7. Information Assurance TR: AFI 33-204	
11.7.1. Definition	A
11.7.2. Threats and Vulnerabilities	A
11.7.3. Protective Measures	A
11.8. Information Conditions (INFOCON)	A
12. AIR AND SPACE EXPEDITIONARY FORCE (AEF)	
12.1. Equipment (e.g. LOGDET)	X
12.2. Personnel (e.g. MANFOR)	X
13. ENTERPRISE SYSTEMS TR: AFI 13 Series	
13.1. Defense Information Systems Network (DISN)	A
13.2. Defense Switched Network (DSN)	A
13.3. Non-secure Internet Protocol Router Network (NIPRNET) TR: DISACs 370-P120-3, 310-P70-73, 310-P70-74, 310-P70-75	A
13.4. Secure Networks	
13.4.1. Secret Internet Protocol Router Network (SIPRNET)	A
13.4.2. Defense Red Switch Network (DRSN)	A
14. ORGANIZATIONAL STRUCTURE	
14.1. Communication Squadron	X
14.2. Combat Communications Squadrons	X
14.3. Expeditionary Communications Squadron	X
14.4. Air Force Network Operations (AFNETOPS)	X
14.5. Air Force Network Operations Center (AFNOC)	X
14.6. Integrated Network Operations and Security Center (INOSC)	X
14.7. Enterprise Service Unit (ESU)	X
14.8. Area Processing Center (APC)	X
14.9. Enterprise Service Desk (ESD)	X
15. CYBER OPERATIONS	
15.1. Structure	A
15.2. Missions	
15.2.1. Offensive	A
15.2.2. Defensive	A
15.2.3. Exploitation	A
15.2.4. .Other (e.g. Influence Operations (IFO), Electronic Warfare (EW))	A
15.3. Network Warfare Fundamentals	
15.3.1. Control Systems (e.g. Supervisory Control and Data Acquisition (SCADA) networks)	A

15.3.2. Identify Tactical Data Link (TADL) networks	A
15.3.3. Network Exploitation Capabilities	A
15.4. Cyber Capabilities	
15.4.1. Affects on adversary decision makers	A
15.4.2. Role of cyber operations in achieving military and national goals and objectives	A
15.4.3. Information Superiority	X
15.4.4. Role of Air Force Network Operations Center (AFNOC)	X
15.4.5. Role of Integrated-Network Operations and Security Centers (I-NOSCs)	X
15.4.6. Role of Network Control Center (NCC)	X
15.4.7. Role of an Air and Space Operations Center (AOC)	X
15.4.8. Role of Information Warfare Flight (IWF)	X
15.4.9. Ops Defensive Measures	A
15.4.10. Ops Capabilities	A

PREFACE

NOTE 1: Users are responsible for annotating technical references to identify current references pending STS revision. Locate current Air Force publications at:

DOD Issuances and OSD Administrative Instructions at <http://www.dtic.mil/whs/directives/>
Air Force publications at <http://www.e-publishing.af.mil/>.
AFSSIs at <https://private.afca.af.mil/ip/>
DISA Circulars and Instructions at <http://www.disa.mil/main/about/publications.html>
Technical Orders (TO) at <https://www.my.af.mil/gcss-af61/ETIMS/index.jsp>
Online Reference Ware and CBTs: <https://www.my.af.mil/faf/FAF/fafHome.jsp> (Under IT E-Learning)

NOTE 2: Knowledge and/or performance tasks are defined in the AFJQS. AFJQS items set the standard for qualification and certification and are mandatory for use in conjunction with this STS when applicable to the duty position.

NOTE 3: AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook. is mandatory for upgrade to the 7-skill level in all 3DXXX career fields.

NOTE 4: All objectives are trained during wartime.

NOTE 5: Track and manage training for TSgts and below and MSgts/SMSgts retrainees using Training Business Area (TBA).

NOTE 6: When an AFJQS is loaded into TBA, AFJQS task numbering will vary from the STS. The numbering scheme is defined by your work center specific master training plan.

NOTE 7: Third person certification is not required for all Cyber Support Specialist personnel. However, members (to include civilians and contractors) assigned to crew positions are still required position certification through Standards-and-Evaluation processes in accordance AFI 13-302 volume 2, *AFCYBER Stan-Eval Program*.

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (ADVANCED THEORY)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)
Explanations		
<p>* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)</p> <p>** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.</p> <p>X This mark is used alone in course columns to show that training is required but not given due to limitations in resources.</p> <p>NOTE: All tasks and knowledge items shown with a proficiency code are trained during wartime.</p> <p>(-) When this code is used in the Core Task Column it indicates that the qualification is a local determination.</p> <p>(5) When this code is used in the Core Task Column it indicates the CFM has mandated this task as a core 5-level requirement. The training to satisfy this requirement is either provided through OJT, CBTs, CDCs, or a combination.</p> <p>(7) When this code is used in the Core Task Column it indicates the CFM has mandated this task as a core 7-level requirement. The training to satisfy this requirement is either provided through OJT, CBTs, CDCs, or a combination.</p> <p>(5*) When this code is used in the Core Task Column it indicates the CFM has selected this task as core 5-level tasks if loaded to the unit's WTA. This code indicates that training to satisfy this requirement is normally provided through OJT.</p> <p>(7*) When this code is used in the Core Task Column it indicates the CFM has selected this task as core 7-level tasks if loaded to the unit's WTA. This code indicates that training to satisfy this requirement is normally provided through OJT.</p>		

CDC column. The use of proficiency coding indicates the level of knowledge training provided by the CDCs, The CDC column will now identify the subject knowledge level covered in the CDC. Information pertaining to the meaning of the code can be located in the STS coding system table.

CFETP versus AFJQS task coding. AFJQSs/AFQTPs annotated in the CFETP with an "X" denotes the AFJQS is mandatory. Within the AFJQS are individual tasks that are coded either "X" or "X*". If the tasks are coded "X," they are mandatory. If coded "X*," they are duty position specific

<p style="text-align: center;"><i>THIS BLOCK IS FOR IDENTIFICATION PURPOSES ONLY</i></p> <p style="text-align: center;">Personal Data – Privacy Act of 1974</p>		
PRINTED NAME OF TRAINEE (<i>Last, First, Middle Initial</i>)	INITIALS (<i>Written</i>)	Last 4 of SSAN
PRINTED NAME OF TRAINER AND CERTIFYING OFFICIAL AND WRITTEN INITIALS		
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
1. CYBER SYSTEMS OPERATIONS CAREER FIELD TR: AFH 33-337; AFIs 10-400, 33-100, 33-101, 33-115 Vols 1 & 3, 33-150; AFMAN 36-2108; 3D0X2 CFETP; AFECD										
1.1. Structure	-						-	-	-	-
1.2. Progression within Air Force Specialty Code 3D0X2	5						-	-	-	-
1.3. Read CFETP 3D0X2 Part I	5						-	-	-	-
1.4. Air Force Specialty Code 3D0X2										
1.4.1. Explain duties of AFSC	5						A	A	-	-
1.4.2. Explain responsibilities of AFSC	5						A	A	-	-
1.4.3. AFSC core competencies	-						-	-	-	-
1.4.4. Qualifications	-						-	-	-	-
1.4.5. Customer relations	5						-	-	-	-
1.4.6. Associated career family AFSCs	5						A	A	-	-
2. SAFETY TR: AFIs 90-901, 91-301, 91-302; AFOSH STDs 91-50, 91-64, 91-501										
2.1. ORM	5						-	A	-	-
2.2. AFOSH Standards for AFSC	5						A	A	-	-
2.3. Hazards of the AFSC	5						A	A	-	-
2.4. Practice safety precautions:										
2.4.1. Maintenance actions.	-						-	-	-	-
2.4.2. Energized equipment.	5						-	-	-	-
2.4.3. Around High Voltage equipment	-						-	-	-	-
2.4.4. In Radio Frequency (RF) hazard environments. TR: AFOSH Std 48-9, chap 2; TO 31Z-10-4; and command and local directives	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
2.4.5. Working with compressed gas cylinders. TR: AFOSH Std 91-50, chap 2.15.-2.15.3; TO 42B5-1-2; and command and local directives	-						-	-	-	-
2.4.6. When handling hazardous materials. TR: AFOSH Std 91-50, paras 2.13 and 2.14; AFOSH Std 91-68; TO 00-25-213	-						-	-	-	-
2.5. Safety and personal protective equipment. TR: AFOSH Std 91-50, ch 2; AFOSH Std 91-66; TO 00-25-245, and command and local directives										
2.5.1. Use	-						-	-	-	-
2.5.2. Maintain	-						-	-	-	-
2.5.3. Inspect	-						-	-	-	-
2.6. Perform general housekeeping	5						-	-	-	-
2.7. Fire protection procedures. TR: AFOSH Std 91-10, chap 2; AFOSH Std 91-66, chap 1.7-1.7.2.4; and command and local directives										
2.7.1. Describe classes of extinguishers	-						-	-	-	-
2.7.2. Describe fire protection procedures for electronic equipment	-						-	-	-	-
2.7.3. Describe fire protection procedures for critical communications facilities	-						-	-	-	-
2.8. Work center safety program. TR: AFI 91-202, chaps 1, 2.2. thru 2.3, and 4; AFI 91-301, sec B, paras 7-7.4, 12, 13, sec C, and attachments; AFQTP 3DXXX-232A; command and local directives										
2.8.1. Manage work center program	-						-	-	-	-
2.8.2. Conduct Job Safety Analysis	-						-	-	-	-
2.8.3. Document AF Forms 55	-						-	-	-	-
2.8.4. Conduct inspections	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
3. PUBLICATIONS AND DIRECTIVES TR: AFIs 33-Series; AF Records Distribution System; http://www.e-publishing.af.mil/										
3.1 Department of Defense (DOD) / Joint	-						-	A	-	-
3.2. Air Force	-						-	A	-	-
3.3. Allied Communications Publications (ACP)	-						-	A	-	-
3.4. Commercial/vendor publications	-						-	A	-	-
3.5. DISA Publications	-						-	A	-	-
3.6. Technical Orders (TO)										
3.6.1. Describe Technical Order System. TR: AFI 63-101; TO 00-5-1; TO 00-5-18	5						-	A	-	-
3.6.2. Locate TO numbers and titles in each TO index TR: TO 00-5-1; TO 00-5-18; https://www.my.af.mil/gcss-af61/ETIMS/index.jsp ; Applicable TO index	-						-	-	-	-
3.6.3. Identify Time Compliance Technical Orders (TCTO) procedures TR: AFCSM 21-568 (V2) https://www.my.af.mil/gcss-af61/ETIMS/index.jsp ; AFI 33-150; TO 00-5-15; and applicable TCTOs	-						-	-	-	-
3.6.4. Implement Time Compliance Technical Orders (TCTO) procedures and document completion TR: AFCSM 21-568 (V2) https://www.my.af.mil/gcss-af61/ETIMS/index.jsp ; AFI 33-150; TO 00-5-15; and applicable TCTOs	-						-	-	-	-
3.6.5. Prepare local work cards, checklists and job guides TR: TO 00-5-1; and command and local directives	-						-	-	-	-
3.7. Standard Installation Practices Technical Order (SIPTO)	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
3.8. Enterprise Information Architecture (EIA)/ Telecommunications Industry Association (TIA)	-						-	A	-	-
3.9. Military Standard (MIL STD)	-						-	A	-	-
3.10. Use publications when performing work	5						-	-	-	-
4. LEGAL/ETHICS TR: AFDD 2-5, Health Insurance Portability and Accountability Act (HIPAA) , http://www.dtic.mil/doctrine/new_pubs/jp3_13.pdf , Information Operations USC TITLE 10, 18 and 50										
4.1. Identify and explain US Codes (e.g. Titles 10, 15, 18, 32, 50) (e.g. Constitutional Authority, legal aspects of rules of engagement, homeland defense, Posse Comitatus, US Charter Paradigm, Schmidt Analysis)	-						-	A	-	-
4.2. Rules of Engagement (ROE)										
4.2.1. Policy	5						-	-	-	-
4.2.2. Security tools	5						-	-	-	-
4.2.3. Network Management Components	5						-	-	-	-
4.2.4. System Monitoring	5						-	-	-	-
4.3. Special Data protection (e.g. sensitive personnel information)	-						-	-	-	-
5. C4I SECURITY TR: ACP 122 ; AFIs 33-129, 33-138, 33-219, 33-332; AFKAG-1&2; AFMAN 33-326; DOD 5200.1-R										
5.1. Operations Security (OPSEC) TR: AFI 10-701; AFRD 10-7										
5.1.1. Definition	-						-	B	-	-
5.1.2. Background	-						-	-	-	-
5.1.3. Relationship of OPSEC to other security programs	-						-	B	-	-
5.1.4. Vulnerabilities	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
5.1.5. Critical information	-						-	-	-	-
5.2. Information Security TR: AFI 31-401; AFD 31-4, 33-2										
5.2.1. Definition	-						-	B	-	-
5.2.2. Classification process	-						-	-	-	-
5.2.3. Declassification process	-						-	-	-	-
5.2.4. Information safeguards										
5.2.4.1. Privacy Act (PA)	-						-	A	-	-
5.2.4.2. For Official Use Only (FOUO)	-						-	A	-	-
5.2.4.3. Sensitive Unclassified	-						-	A	-	-
5.2.4.4. Classified	-						-	A	-	-
5.3. Communications Security (COMSEC) TR: AFIs 31-401, 33-201V2/V3; AFDs 31-4, 33-2										
5.3.1. Definition	5						-	B	-	-
5.3.2. Vulnerabilities	5						-	B	-	-
5.3.3. Safeguarding information	5						-	B	-	-
5.3.4. Identify insecurities	5						-	B	-	-
5.3.5. Report insecurities	5						-	A	-	-
5.3.6. Protect COMSEC material TR: AFI 33-201(V2), sec E, paras 20.1 thru 20.6.1 and local COMSEC directives										
5.3.6.1. Store COMSEC material equipment TR: AFI 33-201(V2), sec E, paras 19.1 thru 19.5 and local COMSEC directives	-						-	-	-	-
5.3.6.2. Store Controlled Cryptographic equipment TR: AFI 33-201(V2), sec E, paras 19.1 thru 19.5 and local COMSEC directives	-						-	-	-	-
5.3.7. Inventory COMSEC documents and/or equipment TR: AFI 33-201(V2), sec F, para 21.1 thru 21.14 and local COMSEC directives	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
5.3.8. Page check COMSEC documents TR: AFI 33-201(V2), sec F, paras 22.1 thru 22.3.4 and local COMSEC directives	-						-	-	-	-
5.3.9. Post amendments to COMSEC documents TR: AFI 33-201(V2), sec F, paras 23.1 thru 23.2 and local COMSEC directives	-						-	-	-	-
5.3.10. Explain procedures for destroying cryptographic equipment and materials TR: AFI 33-201(V2), sec G, paras 27 thru 32 and local directives	-						-	-	-	-
5.3.11. Explain how to report physical, personnel, and cryptographic security violations TR: AFI 33-201(V2/V3), and local directives	-						-	-	-	-
5.3.12. Protect Major Command/Field Operating Agency (MAJCOM/FOA) Mission Critical Information TR: AFI 10-701; AFD 10-7; MAJCOM/FOA directives; and local directives	-						-	-	-	-
5.4. Emission Security (EMSEC) TR: AFD 33-2; AFSSI 7700.										
5.4.1. Definition	-						-	B	-	-
5.4.2. Notifications	-						-	B	-	-
5.4.3. Vulnerabilities	-						-	B	-	-
5.4.4. Protected Distribution System (PDS)	-						-	B	-	-
5.5. Computer Security (COMPUSEC) TR: AFIs 33-200, 33-207; AFD 33-2; AFSSI 8502										
5.5.1. Definition	5						-	B	-	-
5.5.2. Vulnerabilities	5						-	B	-	-
5.5.3. Processing classified information	5						-	B	-	-
5.5.4. Identify insecurities	5						-	B	-	-
5.5.5. Report insecurities	5						-	A	-	-
5.6. Physical Security TR: AFI 31-101; AFD 31-1										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
5.6.1. Definition	5						-	A	-	-
5.6.2. Secure area access management	-						-	B	-	-
5.6.3. Facility security requirements	-						A	B	-	-
5.6.4. Identify violations procedures	-						-	-	-	-
5.6.5. Report violations procedures	5						-	-	-	-
5.6.6. Classified material control										
5.6.6.1. Storage	5						-	B	-	-
5.6.6.2. Transport	5						-	B	-	-
5.6.6.3. Handling	5						-	B	-	-
5.6.6.4. Destruction	-						-	B	-	-
5.6.6.5. Classified waste	-						-	B	-	-
5.6.6.6. Marking	-						-	B	-	-
5.7. Information Assurance TR: AFI 33-200										
5.7.1. Definition	5						-	B	-	-
5.7.2. Certification and accreditation process	-						-	A	-	-
5.8. Information Conditions (INFOCON)	5						-	B	-	-
6. IT REQUIREMENTS TR: AFI 33-401, AFTTP 3-2.22										
6.1. Lifecycle	-						-	A	-	-
6.2. Procurement	-						-	A	-	-
6.3. Integrated Technical Reference Model (ITRM)	-						-	A	-	-
7. MANAGEMENT OF PROCESSES TR: AFIs 33-104, 33-150, 36-2201, 63-124, 63-501, 63-1101, 64-102; AFD 36-5, 64-1; AFQTP; Federal Acquisition Regulation (FAR) Part 39 ; OMB Circular A-130 ; TO 00-33A-1001-WA-1										
7.1. Management Policies										
7.1.1. Equipment Readiness	-						-	-	-	-
7.1.2. Staffing and Utilization	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.3. Training										
7.1.3.1. Document Training	5						-	-	-	-
7.1.3.2. Evaluate newly assigned personnel and identify individual training requirements TR: Applicable AFI 36-2201; AFI 33-150; AFQTP 3DXXX-232A; Applicable CFETP; Unit Training Manual	5						-	-	-	-
7.1.3.3. Conduct On-the-Job Training (OJT) TR: AFI 36-2201; AFQTP 3DXXX-232A; and local directives	5						-	-	-	-
7.1.3.4. Evaluate quality of OJT and provide trainee feedback TR: AFI 36-2201; AFQTP 3DXXX-232A	5						-	-	-	-
7.1.3.5. Develop Master Training Plan	7						-	-	-	-
7.1.4. Quality Assurance (QA)										
7.1.4.1. Perform self inspection	5						-	-	-	-
7.1.4.2. Evaluate Equipment	7						-	-	-	-
7.1.4.3. Document results	5						-	-	-	-
7.1.5. Automated Information Systems (AIS)										
7.1.5.1. Integrated Maintenance Data System	-						-	-	-	-
7.1.5.2. Remedy	-						-	-	-	-
7.1.5.3. Asset Inventory Management System	-						-	-	-	-
7.1.5.4. Training Business Area	-						-	-	-	-
7.1.6. Communications Focal Point TR: AFJQS 3D1XX-201F	-						-	-	-	-
7.1.7. Logistics Support										
7.1.7.1. Submit Price Challenges TR: AFMAN 23-110, vol 7, part 4	-						-	-	-	-
7.1.7.2. Report Item and Packaging Discrepancies TR: AFJMAN 23-215	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.7.3. Report Uniform Source, Maintenance and Recoverability Code and Air Force Expendability, Recoverability, Reparability Category Code Discrepancies TR: AFJI 21-106; TOs 00-20-3, chap 1; 00-25-195-WA-1	-						-	-	-	-
7.1.7.4. Submit Deficiency Reports TR: TO 00-35D-54-WA-1, chap 3	-						-	-	-	-
7.1.7.5. Research and identify part and stock numbers TR: Applicable equipment TOs, Federal Logistics (FEDLOG) program	-						-	-	-	-
7.1.7.6. Maintain supply listings and reports (D04, D18, M30, D23, or equivalent Core Automated Maintenance System [CAMS]) TR: AFMAN 23-110 (V2), part 13, chap 5	-						-	-	-	-
7.1.7.7. Use/maintain bench stock. TR: AFMAN 23-110 (V2), part 2, chap 25; part 13, chap 3; and local directives	-						-	-	-	-
7.1.7.8. Use/maintain supply point stock TR: AFMAN 23-110 (V2), part 2, chap 24, attch 24A4 and 24A5; AFMAN 23-110 (V2) part 13, chap 3; TO 00-20-3-WA-1, chap 3										
7.1.7.8.1. Request and validate adjusted stock levels (special levels) TR: AFMAN 23-110 (V2), part 2, chap 19; AFMAN 23-110 (V2) part 13, chap 3	-						-	-	-	-
7.1.7.9. Describe procedures for recovering and turning in precious metals TR: AFMAN 23-110 (V2), part 13, chap 1.15; and local directives	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.7.10. Process and control repair cycle assets Due In For Maintenance (DIFM) TR: AFMAN 23-110 (V2), part 2, chap 24; AFMAN 23-110 (V2), part 13, chap 6; TO 00-20-3-WA-1, chaps 2 and 3, and Table 2-1	-						-	-	-	-
7.1.7.11. Initiate Not Repairable This Station (NRTS) actions TR: AFI 33-150; TO 00-20-3-WA-1, chaps 3 and 6, and Table 1-1	-						-	-	-	-
7.1.7.12. Initiate contract repair (AF Form 9) TR: AFI 64-102; AFMAN 23-110 (V2), part 13, chap 8, sec 8H; Command and local directives	-						-	-	-	-
7.1.7.13. Maintain Custodian Authorization/Custody Receipt Listing (CA/CRL) equipment accounts TR: AFMAN 23-110 (V2), part 13, chap 8, secs 8C and 8F; and local directives	-						-	-	-	-
7.1.8. Work Center Management TR: AFQTP 3DXXX-232A, AFQTP 3DXXX-200D										
7.1.8.1. Report Status	5						-	-	-	-
7.1.8.2. Document actions	5						-	-	-	-
7.1.8.3. Develop work schedules	7						-	-	-	-
7.1.8.4. Report Publication Errors and Form Deficiencies TR: AFI 33-360V2	-						-	-	-	-
7.1.8.5. Report Technical Order Improvements TR: TO 00-5-1	5						-	-	-	-
7.1.9. Deployed Processes	-						-	-	-	-
7.1.10. Modification Management										
7.1.10.1. Control Configuration	7						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.10.2. Initiate Modification Proposals TR: AFI 63-1101	-						-	-	-	-
7.1.11. Cyberspace infrastructure planning system										
7.1.11.1. CSIRs	-						-	A	-	-
7.1.11.2. CIPS CVC tool	-						-	-	-	-
7.1.12. Administrative Contract Management TR: AFQTP 3DXXX-213R										
7.1.12.1. Types of Contracts										
7.1.12.1.1. Time and material	7						-	-	-	-
7.1.12.1.2. Firm fixed price	7						-	-	-	-
7.1.12.1.3. Sole source	7						-	-	-	-
7.1.12.1.4. Performance based	7						-	-	-	-
7.1.12.1.5. Indefinite delivery indefinite quantity	-						-	-	-	-
7.1.12.1.6. Blanket Purchase Agreement (e.g. AFWAY, PCOE)	7						-	-	-	-
7.1.12.2. Responsibilities										
7.1.12.2.1. Quality Assurance Program Coordinator	-						-	-	-	-
7.1.12.2.2. Functional director/commander	-						-	-	-	-
7.1.12.2.3. Quality assurance personnel	-						-	-	-	-
7.1.12.2.4. Unit contract monitor	-						-	-	-	-
7.2. Information Management TR: AFD 33-3; AFIs 33-119, 33-321, 33-129; AFH 33-337; AFMANs 33-128, 33-326; 37-104 (will convert to AFI 33-396)										
7.2.1. Electronic Communications	-						-	A	-	-
7.2.2. Internet policy familiarization	-						-	A	-	-
7.2.3. E-mail Management										
7.2.3.1. Policy	-						-	A	-	-
7.2.3.2. E-mail etiquette	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.3. Air Force Portal TR: AF EIM CONOP; AF EIM Strategy; AF Portal Publishing Training Site ; Air Force Portal Content Publishing Training Guides										
7.3.1. Program objectives	-						-	A	-	-
7.3.2. Roles	-						-	A	-	-
7.3.3. Enterprise Information Management (EIM)										
7.3.3.1. Definition	-						-	A	-	-
7.3.3.2. Capabilities	-						-	A	-	-
7.3.4. Collaborative Tools										
7.3.4.1. Community of Practice (CoP)	-						-	A	-	-
7.3.4.2. Defense Connect Online (DCO)	-						-	A	-	-
7.3.4.3. SharePoint	-						-	-	-	-
7.4. Records Management Program TR: AFPDs 33-1, 33-3; AFIs 33-322, 33-364; AFMANs 37-104 (will convert to AFI 33-396), 33-363; AF Records Information Management System (AFRIMS); AF Electronic Records Management Solution Guide										
7.4.1. Program objectives	-						-	A	-	-
7.4.2. Definition of official records	-						-	B	-	-
7.4.3. Responsibilities	-						-	A	-	-
7.4.4. Electronic Records (E-Records) Environment Management										
7.4.4.1. Business rules for electronic files (e-files)	-						-	B	-	-
7.4.5. Files Maintenance Disposition Plan (Paper/Electronic)										
7.4.5.1. File and retrieve documents	-						-	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.4.5.2. Cutoff procedures (paper /electronic)	-						-	B	-	-
7.4.6. Managing deployed records	-						-	A	-	-
7.4.7. Destruction	-						-	B	-	-
7.5. Functional Management TR: AFECD ; AFIs 33-101, 36-2201, 36-2845, 38-101; AFMAN 37-104; AFQTP 3D0X1-225E ; 3D0X2 CFETP										
7.5.1. Responsibilities										
7.5.1.1. AF Career Field Manager	7						-	A	-	-
7.5.1.2. MAJCOM Functional Manager	7						-	A	-	-
7.5.1.3. Base Functional Manager	7						-	A	-	-
7.5.2. Resource Management										
7.5.2.1. Manpower products	-						-	-	-	-
7.5.2.2. Manpower studies	-						-	-	-	-
7.5.2.3. Authorization /Organizational Change Request process	-						-	-	-	-
7.5.2.4. Manpower standards	-						-	-	-	-
7.5.2.5. Allocating personnel	-						-	-	-	-
7.5.2.6. Job rotations	-						-	A	-	-
7.5.3. Comm and Info awards program	-						-	-	-	-
7.5.4. Workshops										
7.5.4.1. Utilization and Training Workshop (U&TW)	7						-	A	-	-
7.5.4.2. Training Advisory Groups	-						-	A	-	-
7.5.4.3. Occupational survey	-						-	A	-	-
8. EXPEDITIONARY COMMUNICATIONS & INFORMATION (C&I) CONCEPTS TR: AFDD 2-4; AFIs 10-401, 10-403, 21-109, 33-201V2, AFMAN 23-110										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
8.1. Describe Joint Task Force (JTF) Organizational Structure										
8.1.1. Unified/Combatant Commands (COCOM)	-						-	-	-	-
8.1.2. Air Force Component Commander (AFCC)	-						-	-	-	-
8.1.3. Joint Force Air Component Commander (JFACC)	-						-	-	-	-
8.1.4. Commander Air Force Forces (COMAFFOR)	-						-	-	-	-
8.2. Describe the Concepts of Aerospace Expeditionary Force (AEF) Employment										
8.2.1. AEF Tempo Banding	-						-	A	-	-
8.2.2. Enabler Forces	-						-	-	-	-
8.2.3. Deployment Planning and Execution	-						-	-	-	-
8.3. Describe the following UTC processes										
8.3.1. Defined	-						-	-	-	-
8.3.2. Development										
8.3.2.1. Designed Operational Capability (DOC)	-						-	-	-	-
8.3.2.2. AEF UTCs										
8.3.2.2.1. Unit Type Code (UTC)	5						-	A	-	-
8.3.2.2.2. Equipment (e.g. LOGDET)	7						-	A	-	-
8.3.2.2.3. Personnel (e.g. MANFOR)	7						-	A	-	-
8.4. Posturing	7						-	-	-	-
8.5. Sourcing	7						-	-	-	-
8.6. Readiness Status Reporting										
8.6.1. Status of Resources and Training (SORTS)	-						-	-	-	-
8.6.2. AEF UTC Reporting Tool (ART)	7						-	-	-	-
8.7. Understand Force Module communications support concept										
8.7.1. Open the Air Base	7						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
8.7.2. Command and Control	7						-	-	-	-
8.7.3. Establish the Air Base	7						-	-	-	-
8.7.4. Generate the Mission	7						-	-	-	-
8.7.5. Operate the Air Base	7						-	-	-	-
8.7.6. Robust the Air Base	7						-	-	-	-
8.8. Deployment Procedures										
8.8.1. Develop load plan	-						-	-	-	-
8.8.2. Explain pallet build-up procedures	-						-	-	-	-
8.8.3. Explain hazardous cargo preparation	-						-	-	-	-
8.8.4. Prepare documentation	-						-	-	-	-
8.8.5. Determine site selection requirements	-						-	-	-	-
8.8.6. Determine site preparation requirements	-						-	-	-	-
8.8.7. Determine site configuration requirements	-						-	-	-	-
8.8.8. Determine requirements for constructing deployment site utility grids	-						-	-	-	-
9. TYPICAL DEPLOYABLE COMM MISSIONS TR: AFPAM 10-100 , MAJCOM and Local Directives										
9.1. Deployable COMM missions:										
9.1.1. Contingency Response Groups	-						-	A	-	-
9.1.2. Theater Deployable Communications (TDC)	-						-	A	-	-
9.1.3. Deployable Air Traffic Control Systems (DATCALS)	-						-	A	-	-
9.1.4. Engineering Installation	-						-	A	-	-
9.1.5. C4ISR Platforms										
9.1.5.1. Air Operations Centers	-						-	A	-	-
9.1.5.2. Ground Theater Air Control Systems (Air Control Squadrons)	-						-	A	-	-
9.1.5.3. Air Support Operations Centers	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
9.1.5.4. Unmanned Aerospace Systems (UAS)										
9.1.5.4.1. Global Hawk	-						-	A	-	-
9.1.5.4.2. Predator and Reaper	-						-	A	-	-
9.1.5.5. Installation Notification and Warning System	-						-	A	-	-
9.1.5.6. American Forces Network (AFN)	-						-	A	-	-
9.1.5.7. Aeromedical Evacuation Support	-						-	A	-	-
10. ENTERPRISE SYSTEMS TR: AFI 13 Series, CJCSI 6211.02C , Joint Pub 6-0										
10.1. Combat Information Transport System (CITS)	-						-	A	-	-
10.2. Global Command and Control Systems (GCCS)	-						-	A	-	-
10.3. Global Combat Support Systems (GCSS)	-						-	A	-	-
10.4. Global Information Grid (GIG)	-						-	A	-	-
10.5. Defense Information Systems Network (DISN)	-						-	B	-	-
10.6. Defense Switched Network (DSN)	-						-	B	-	-
10.7. Non-secure Internet Protocol Router Network (NIPRNET)	-						-	B	-	-
10.8. Secure Networks										
10.8.1. Secret Internet Protocol Router Network (SIPRNET)	-						-	B	-	-
10.8.2. Defense Red Switch Network (DRSN)	-						-	A	-	-
10.8.3. Joint World-wide Intelligence Communications System (JWICS)	-						-	A	-	-
10.8.4. National Security Agency (NSA) Net	-						-	A	-	-
10.8.5. Global Broadcast Service (GBS)	-						-	A	-	-
10.8.6. Global Positioning System (GPS)	-						-	A	-	-
10.8.7. Distributed Common Ground System (DCGS)	-						-	A	-	-
10.8.8. Battle Control System – Fixed	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
10.8.9. Theater Battle Management Core Systems (TBMCS)	-						-	A	-	-
10.9. Nuclear Command and Control Systems TR: AFQTP 3DXXX-232A										
10.9.1. National Military Command Center (NMCC)	-						-	A	-	-
10.9.2. Global High Frequency Network	-						-	A	-	-
10.9.3. Strategic Automated Command and Control System (SACCS)	-						-	A	-	-
10.9.4. Military Strategic and Tactical Relay (MILSTAR) Satellite	-						-	-	-	-
10.9.5. Minimum Essential Emergency Communications Network (MEECN)	-						-	-	-	-
10.10. Space Systems Elements TR: AFQTP 3DXXX-232A										
10.10.1. Air Force Satellite Control Network (AFSCN)	-						-	-	-	-
10.10.2. Defense Meteorological Satellite Program (DMSP)	-						-	-	-	-
10.11. DoD Teleports & Standard Tactical Entry Points	-						-	A	-	-
11. ORGANIZATIONAL STRUCTURE TR: AFD 13-3; AFI 33-115V1, 38-101										
11.1. Communication Squadron	5						-	A	-	-
11.2. Combat Communications Squadrons	5						-	A	-	-
11.3. Expeditionary Communications Squadron	5						-	A	-	-
11.4. Air Force Network Operations (AFNETOPS)										
11.4.1. Air Force Network Operations Center (AFNOC).	5						-	B	-	-
11.4.2. Integrated Network Operations Security Center (INOSC).	5						-	B	-	-
11.4.3. Enterprise Service Unit (ESU).	5						-	B	-	-
11.4.4. Area Processing Center (APC).	5						-	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
11.4.5. Enterprise Service Desk (ESD)	5						-	B	-	-
12. CYBER OPERATIONS TR: AFDD 3-12										
12.1. Structure	5						-	A	-	-
12.2. Missions										
12.2.1. Offensive	5						-	A	-	-
12.2.2. Defensive	5						-	A	-	-
12.2.3. Exploitation	5						-	A	-	-
12.2.4. Other (e.g. Influence Operations (IFO), Electronic Warfare (EW))	5						-	A	-	-
12.3. Network Warfare Fundamentals										
12.3.1. Control Systems (e.g. Supervisory Control and Data Acquisition (SCADA) networks)	5						-	A	-	-
12.3.2. Identify Tactical Data Link (TADL) networks	5						-	A	-	-
12.3.3. Network Exploitation Capabilities	5						-	A	-	-
12.4. Cyber Capabilities										
12.4.1. Affects on adversary decision makers	5						-	B	-	-
12.4.2. Role of cyber operations in achieving military and national goals and objectives	5						-	B	-	-
12.4.3. Information Superiority	5						-	B	-	-
12.4.4. Air Force Network Operations Center (AFNOC) Role	5						-	B	-	-
12.4.5. Air and Space Operations Center (AOC) Role	5						-	B	-	-
12.4.6. Checklists, Standard Operating Instructions (SOP), Tactics, Techniques and Procedures (TTP)	5						-	A	-	-
13. BASIC COMPUTER FUNDAMENTALS TR: IT E-Learning, Cyber Support Training, 3DXXX Basic Computer Fundamentals										
13.1 Communications & Network Protocols										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
13.1.1 Connection Oriented Communication	5						-	B	-	-
13.1.2 Connectionless Oriented Communication	5						-	B	-	-
13.1.3 International Standards Organization (ISO) Open Systems Interconnect (OSI) Model	5						-	B	-	-
13.1.4 TCP/IP	5						-	B	-	-
13.1.5 Department of Defense (DoD) Standards Protocol	5						-	A	-	-
13.1.6 IPv4/IPV6	5						-	B	-	-
13.1.7 Ports (IP)	5						-	A	-	-
13.2 Network Theory/Components										
13.2.1 Components										
13.2.1.1 Component Principles	5						-	B	-	-
13.2.1.2 Central Processing Unit (CPU)	5						-	A	-	-
13.2.1.3 Computer memory	5						-	A	-	-
13.2.1.4 Input/output (I/O) Devices	5						-	A	-	-
13.2.1.5 Storage Devices	5						-	A	-	-
13.2.1.6 Peripherals (Printers, FAX, Scanners, etc)	5						-	A	-	-
13.2.2 Network Types										
13.2.2.1 Wired (LAN, WAN, MAN)	5						-	B	-	-
13.2.2.2 Wireless	5						-	B	-	-
13.2.2.3 Virtual Private Network (VPN)	5						-	B	-	-
13.2.2.4 Topologies (Star, Ring, Bus, hybrid)	5						-	B	-	-
13.2.2.5 Theory and operation of switching devices (ATM, ISDN, GIG-E)	5						-	B	-	-
13.3. Network Devices										
13.3.1 Modems	5						-	A	-	-
13.3.2 Switches/Bridges	5						-	A	-	-
13.3.3 Multiplexers	5						-	A	-	-
13.3.4 Routers	5						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
13.3.5 Encryption Devices	5						-	A	-	-
13.4. Communications Mediums	5						-	A	-	-
13.5 LAN Architecture	5						-	A	-	-
13.6 Software										
13.6.1. Operating Systems (e.g. UNIX, Windows, LINUX)	5						-	A	-	-
13.6.2. Applications (e.g. Word, Excel, Power Point)	5						-	A	-	-
13.6.3. Infectious and malicious Software	5						-	B	-	-
14. COUNTER-CHEMICAL, BIOLOGICAL, NUCLEAR and RADIOLOGICAL TR: AFPAM 10-100, 10-2501										
14.1 Describe threats										
14.1.1. Chemical	-						-	-	-	-
14.1.2. Biological	-						-	-	-	-
14.1.3. Nuclear	-						-	-	-	-
14.1.4. Radiological	-						-	-	-	-
14.2. Warning systems, signals and reporting procedures										
14.2.1. Joint and Coalition	-						-	-	-	-
14.2.2. Air Force	-						-	-	-	-
14.2.3. Respond to alarm conditions.										
14.2.3.1. Identify and prioritize mission/service restoration	-						-	-	-	-
14.2.3.2. Post-attack personnel accountability	-						-	-	-	-
14.2.3.3. Post-attack reconnaissance	-						-	-	-	-
14.2.3.4. Identify and mark CBRNE to include unexploded ordinance	-						-	-	-	-
14.2.3.5. Report suspicious activities	-						-	-	-	-
14.3. Mission Oriented Protective Postures.										
14.3.1. Describe	-						-	-	-	-
14.3.2. Implement	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
14.4. Individual protective equipment & personal protective equipment (IPE/PPE)										
14.4.1. Requirements and Limitations	-						-	-	-	-
14.4.2. Ground Crew Ensemble										
14.4.2.1. Inspect and maintain	-						-	-	-	-
14.4.2.2. Wear	-						-	-	-	-
14.4.2.3. Perform critical mission tasks	-						-	-	-	-
14.4.2.4. Execute work-rest cycles and hydration standards	-						-	-	-	-
14.4.2.5. Perform self aid and buddy care	-						-	-	-	-
14.4.2.6. Perform contaminated personnel movement	-						-	-	-	-
14.4.2.7. Perform decontamination procedures	-						-	-	-	-
15. SECURITY+ CERTIFICATION TR: IT E-learning, Security+ Training Track										
15.1. Systems Security										
15.1.1. Differentiate among system security threats	-						B	-	-	-
15.1.2. Hardware and peripheral security risks	-						B	-	-	-
15.1.3. Operating System hardening practices and procedures (server/workstation security)	-						c	-	-	-
15.1.4. Establish procedures for application security	-						b	-	-	-
15.1.5. Apply security applications procedures	-						b	-	-	-
15.1.6. Virtualization technology applications	-						B	-	-	-
15.2. Network Infrastructure										
15.2.1. Threats and mitigation techniques (ports and protocols)	-						B	-	-	-
15.2.2. Network design elements and components	-						B	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
15.2.3. Determine Network tool usage to facilitate network security	-						C	-	-	-
15.2.4. Network tools to facilitate network security	-						a	-	-	-
15.2.5. Network Devices vulnerabilities and mitigations	-						B	-	-	-
15.2.6. Transmission Media vulnerabilities and mitigations	-						B	-	-	-
15.2.7. Wireless networking vulnerabilities and mitigations	-						B	-	-	-
15.3. Access Control										
15.3.1. Industry best practices for access control methods	-						B	-	-	-
15.3.2. Common access control models	-						B	-	-	-
15.3.3. Organize users (& computers) into security groups and roles while determining rights and privileges	-						C	-	-	-
15.3.4. Apply security controls to file and print resources	-						b	-	-	-
15.3.5. Compare and apply logical access control methods	-						c	-	-	-
15.3.6. Authentication models and components	-						B	-	-	-
15.3.7. Authentication models and components deployment	-						B	-	-	-
15.3.8. Authentication and identification	-						B	-	-	-
15.3.9. Physical access security methods	-						B	-	-	-
15.4. Assessments and audits										
15.4.1. Perform risk assessment and implement risk mitigation	-						b	-	-	-
15.4.2. Perform vulnerability assessments using common tools	-						b	-	-	-
15.4.3. Purpose of Penetration testing and vulnerability scanning	-						B	-	-	-
15.4.4. Use monitoring tools on systems/networks and detect security related anomalies	-						B	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
15.4.5. Comparison of monitoring methodologies	-						C	-	-	-
15.4.6. Apply proper logging procedures and evaluate results	-						c	-	-	-
15.4.7. Auditing procedures for system security settings	-						b	-	-	-
15.5. Cryptography										
15.5.1. General Cryptography Concepts	-						B	-	-	-
15.5.2. Basic hashing concept application	-						B	-	-	-
15.5.3. Basic encryption application concept	-						B	-	-	-
15.5.4. Protocols	-						B	-	-	-
15.5.5. Public Key Cryptography Concepts	-						B	-	-	-
15.5.6. PKI Certificate Management Implementation	-						b	-	-	-
15.6. Organizational Security										
15.6.1. Redundancy Planning Components	-						B	-	-	-
15.6.2. Apply disaster recovery procedures	-						b	-	-	-
15.6.3. Execute appropriate incident response procedures	-						b	-	-	-
15.6.4. Legislation and organizational policies	-						B	-	-	-
15.6.5. Environmental controls	-						B	-	-	-
15.6.6. Social engineering risks	-						B	-	-	-
16. NETWORK ENCLAVES TR: AFIs 33-115 V1, 33-116; DISACs 310-70-1; www.disa.mil/services/data.html										
16.1. NIPRNET	5						A	B	-	-
16.2. SIPRNET	5						A	B	-	-
16.3. JWICS	5*						-	-	-	-
16.4. NSANET	5*						-	-	-	-
16.5. CENTRIX	5*						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
17. INFORMATION PROTECTION (IP) OPERATIONS TR: ACP 122(F); AFDD 2-5; AFH 31-602; AFIs 10-2001, 33-115 Vol I & II, 33-138, 33-200, 33-202 Vol 6, 33-203V1, 33-230, 33-332; AFMAN 33-223, AFD 33-2; AFSSI 8580, CJCSM 6510.01 (enclosure B); TO 31S5-4-2987-1										
17.1. Identification and Authentication	5						A	B	-	-
17.2. Remanence Security	5						A	B	-	-
17.3. Certification and Accreditation (e.g. System/Network)	5						A	B	-	-
17.4. INFOCON										
17.4.1. Defense in-Depth TR: CJCSM 6510.01 (enclosure B); AFDD 2-5, AFI 10-2001										
17.4.1.1. Define Defense-in-depth	5						A	B	-	-
17.4.1.2. Concept	5						A	B	-	-
17.4.1.3. Tactics, Techniques, and Procedures	7						A	B	-	-
17.4.1.4. Defensive Counter Information (DCI)	-						A	-	-	-
17.4.2. Threats and Vulnerabilities										
17.4.2.1. Internal and External	5						A	A	-	-
17.4.2.2. Malicious Logic (e.g. virus, worm, Trojan)	5						A	A	-	-
17.4.2.3. Countermeasures	5						B	B		
17.5. Network Protection										
17.5.1. Boundary protection	5						A	B	-	-
17.5.2. Intrusion/misuse detection	5						A	B	-	-
17.5.3. Internal control	5						A	B	-	-
17.5.4. Access preservation	5						A	B	-	-
17.5.5. Authentication/encryption	5						A	B	-	-
17.5.6. Security tools (e.g. firewalls)	5						A	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
17.5.7. Maintain Situational Awareness	5						A	-	-	-
18. INFORMATION TECHNOLOGY SYSTEMS FUNDAMENTALS TR: SkillPort IT E-learning: book "Beginning Programming for Dummies", course "Memory, Motherboards, and Processors (123905_eng)"										
18.1. Programming languages	5						A	B	-	-
18.2. Graphical User Interfaces (GUI)	5						A	B	-	-
18.3. Digital numbering systems conversion (binary, octal, hexadecimal)	5						-	B	-	-
18.4. Data flow	5						A	-	-	-
18.5. Memory structure (e.g. buffers)	5						A	B	-	-
18.6. Interrupt requests (IRQ)	5						A	B	-	-
18.7. Drivers	5						A	B	-	-
18.8. BIOS	5						A	B	-	-
18.9. PROMs	5						A	B	-	-
18.10. CMOS	5						A	B	-	-
18.11. Client servers (e.g. thin client, terminal services)	5						A	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
19. SERVERS TR: AFI 33-119, 33-129; Section 508 of the Rehabilitation Act (29 U.S.C. 794d); Local COOP procedures; AFECMO FDCC website https://afecmo.gunter.af.mil SkillPort IT E-learning: courses "Memory, Motherboards, and Processors (123905_eng)", "Operating Systems (242527_eng)", "Working with Unix Files and Directories (80533_eng)", "Database Fundamentals (WDBFUN)", "Java Script Language Basics (115406_eng)", "Web Services and Service-oriented Architecture (218846_eng)", "Disaster Recovery and Server Backups (222048_eng)"										
19.1. Hardware										
19.1.1. RAID Configuration	5*						A	B	-	-
19.1.2. Controller Cards (eg SCSI)	5*						A	B	-	-
19.1.3. Memory	5*						A	B	-	-
19.2. Software										
19.2.1. Operating Systems (install/configure)										
19.2.1.1 Windows environment										
19.2.1.1.1. File management procedures										
19.2.1.1.1.1. Hierarchy systems	5*						2b	b	-	-
19.2.1.1.1.2. Permissions	5*						2b	b	-	-
19.2.1.1.1.3. Accounts										
19.2.1.1.1.3.1. Create	5*						2b	B	-	-
19.2.1.1.1.3.2. Modify	5*						2b	B	-	-
19.2.1.1.1.3.3. Delete	5*						2b	B	-	-
19.2.1.1.1.3.4. Assign privileges	5*						2b	b	-	-
19.2.1.1.1.4. Software patch										
19.2.1.1.1.4.1. Local	5*						b	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
19.2.1.1.1.4.2. Remote	5*						b	A	-	-
19.2.1.1.1.5. System optimization	5*						2b	b	-	-
19.2.1.2. UNIX										
19.2.1.2.1. File management procedures										
19.2.1.2.1.1. Hierarchy systems	5*						2b	B	-	-
19.2.1.2.1.2. Permissions	5*						2b	B	-	-
19.2.1.2.2. Accounts										
19.2.1.2.2.1. Create	5*						2b	B	-	-
19.2.1.2.2.2. Modify	5*						2b	B	-	-
19.2.1.2.2.3. Delete	5*						2b	B	-	-
19.2.1.2.2.4. Assign privileges	5*						2b	B	-	-
19.2.1.2.3. Software patch										
19.2.1.2.3.1. Local	5*						-	A	-	-
19.2.1.2.3.2. Remote	5*						-	A	-	-
19.2.1.2.4. System optimization	5*						-	A	-	-
19.2.1.2.5. Manipulate UNIX file system structure	5*						2b	B	-	-
19.2.1.2.6. Perform basic UNIX commands	5*						2b	A	-	-
19.2.1.2.7. System and Network Services	5*						-	-	-	-
19.2.1.2.8. Administer file systems and print services	5*						-	A	-	-
19.2.1.2.9. Configure network services	5*						2b	-	-	-
19.2.1.2.10. Perform remote system commands	5*						2b	-	-	-
19.2.1.2.11. Shells										
19.2.1.2.11.1. Shell types	5*						A	-	-	-
19.2.1.2.11.2. Shell scripting	5*						-	-	-	-
19.2.1.2.12. ASCII text editor (e.g. VI editor)	5*						2b	B	-	-
19.2.1.2.13. Setup and manage disk quotas	5*						-	-	-	-
19.2.1.2.14. Security Management										
19.2.1.2.14.1. Administer basic host security	5*						-	-	-	-
19.2.1.2.14.2. Perform system monitoring	5*						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
19.2.1.2.15. Troubleshooting	5*						-	-	-	-
19.2.2. Applications										
19.2.2.1. Functional or special systems (e.g. utilities, TBMCS, GCCS, etc.)	5*						A	A	-	-
19.2.2.2. Enabling/support systems (e.g. SMS, SMARTS, TMS, Cisco Works, App Manager, Blackberry etc.)	5*						A	A	-	-
19.2.2.3. Collaborative tools (e.g. Share Point, IWS, Net Meeting, OCS, NCES, etc.)	5*						A	A	-	-
19.2.2.4. Server Information Protect (IP) software (e.g. Common, Intrusion Detection Director Systems (CIDDs), anti-virus)	5*						A	A	-	-
19.2.2.5 Terminal Services	5*						-	-	-	-
19.2.2.6. Storage (e.g. SAN, NAS)	5*						A	B	-	-
19.2.2.7. Perform Backup/Restoral	5*						B	A	-	-
19.2.3. Database Fundamentals (e.g. Oracle, Sybase)										
19.2.3.1. Facts and principles										
19.2.3.1.1. Flat file	5*						-	-	-	-
19.2.3.1.2. Relational	5*						A	B	-	-
19.2.3.1.3. Relational database structures	5*						A	B	-	-
19.2.3.2. Use SQL										
19.2.3.2.1. Query	5*						2b	-	-	-
19.2.3.2.2. Manipulate	5*						2b	-	-	-
19.2.3.2.3. Generate reports	5*						2b	-	-	-
19.2.4. Web Fundamentals TR: AFI 33-119, 33-129; Section 508 of the Rehabilitation Act (29 U.S.C. 794d)										
19.2.4.1. Language (e.g. CGI, HTML, XML, JavaScript, Java, .NET)	5*						A	B	-	-
19.2.4.2. Web Security										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
19.2.4.2.1. Session Management	5*						A	B	-	-
19.2.4.2.2. Secure Socket Layer	5*						A	B	-	-
19.2.4.3. Web application	5*						A	B	-	-
19.2.4.4. SOA (e.g. Web Services)	5*						A	B	-	-
19.3. Disaster/contingency/operational/crisis										
19.3.1. Backup/Restoral	5*						B	B	-	-
19.3.2. Offsite Storage	5*						A	A	-	-
19.3.3. Alternate system location	5*						A	A	-	-
19.3.4. Priority restoration plan	5*						A	A	-	-
19.3.5. Alternate power	5*						-	-	-	-
20. DIRECTORY SERVICES TR: AFNOIs, 300-1025, 300-1026, 300-1600, 300-1602, 300-1603, 300-1604, 300-1605, 300-1607 & 300-1608, AFJQSs, 3D0X2-200CG, 3D0X2-200CI SkillPort IT E-learning: courses "Server Installation and Configuration for Server+", "Microsoft Exchange Server 5.5: Advanced Internet Features (EX5514E)", "Overview of SQL Server 2000 (31478_eng)", "Backing Up SQL Server 2000 Databases (31556_eng)", "Installing, Configuring, and Upgrading SQL Server 2000 (31489_eng)", "Security in a Microsoft SQL Server 2000 Environment (31499_eng)", "SQL Server 2000 Databases (31493_eng)", "Administering and Configuring Internet Information Services 5.0 (35690_eng)", "Restoring SQL Server 2000 Databases (31560_eng)"										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
20.1. Domain Creation	5*						2b	B	-	-
20.2. DNS	5*						2b	B	-	-
20.3. DHCP	5*						2b	B	-	-
20.4. Domain Definitions (Root, Forest, Domain, Child Domain, Object, FSMO Role Holder)	5*						A	B	-	-
20.5. Active Directory (Directory Resource Administrator [DRA])										
20.5.1. Configure										
20.5.1.1. Organizational Units (OUs)	5*						2b	B	-	-
20.5.1.2. Object creation (user, printer, computer, group)	5*						2b	B	-	-
20.5.1.3. GPO	5*						2b	B	-	-
20.5.2. Application Services										
20.5.2.1. Exchange	5*						2b	B	-	-
20.5.2.2. SQL	5*						A	B	-	-
20.5.2.3. IIS/WEB	5*						A	B	-	-
20.5.2.4. ISA (Internet Security and Acceleration) server	5*						A	B	-	-
20.5.2.5. File/Print	5*						2b	-	-	-
21. NETWORKED SYSTEMS TR: AFIs, 33-112, 33-115 Vol 1, 2, & 3, 33-119, 33-207										
21.1. Overview/Definition	-						A	B	-	-
20.2. Network Authentication										
21.2.1. PKI										
21.2.1.1. CAC	5						A	B	-	-
21.2.1.2. CA Server	5*						A	B	-	-
21.2.1.3. CRL	5*						A	B	-	-
21.2.1.4. Server Middleware	5*						A	B	-	-
21.2.2. Bio Metrics	5						A	B	-	-
21.2.3. Username/Password	5						A	B	-	-
21.3. Network Addressing										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
21.3.1. Addressing (e.g. sub-netting)	5						A	B	-	-
21.3.2. Interface protocols (e.g. SNMP)	5						B	B	-	-
21.3.3. Perform Network/System Auditing TR: AFI 33-200										
21.3.3.1. Monitor events (e.g. Invalid log-on)	5						A	B	-	-
21.3.3.2. Monitor resources	5						A	B	-	-
21.4. Startup and shutdown	5						2b	b	-	-
21.5. Systems Management										
21.5.1. Overview										
21.5.1.1. Fault management (i.e. outages, system degradation)	5						A	B	-	-
21.5.1.2. Configuration	5						A	B	-	-
21.5.1.3. Security	5						A	B	-	-
21.5.1.4. Performance	5						A	B	-	-
21.5.1.5. Accounting	5						A	B	-	-
21.6. Event Response										
21.6.1. Incident/Event Reporting TR: AFI 10-201, 33-115, AFI 33-138	5						A	B	-	-
21.6.2. Incident Response	5						A	B	-	-
21.7. Use network management software										
21.7.1. Customize system	5						2b	B	-	-
21.7.2. Monitor system performance	5						2b	B	-	-
22. EXPEDITIONARY COMMUNICATIONS TR: ACPs 117(N), 121(H), 122(F), 131(F); AFIs 10-401, 33-112, 33-113; AFJMAN 23-210; DISAC 310-D70-30; CJCSM 6231.01										
22.1. Deployable Communications Systems TR: AFI 33-116										
22.1.1. Communications Support (e.g. TDC)										
22.1.1.1. Mission	5*						A	B	-	-
22.1.1.2. Employment concepts	5*						A	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
22.1.1.3. Capabilities	5*						A	B	-	-
22.1.1.4. Interfacing considerations	5*						A	B	-	-
22.1.2. TDC deployment										
22.1.2.1. Pre-deployment	5*						B	B	-	-
22.1.2.2. Deployment	5*						B	B	-	-
22.1.2.3. Establish services	5*						B	B	-	-
22.1.2.4. Troubleshoot	5*						-	-	-	-
22.1.2.5. Extended services	5*						B	B	-	-
22.1.2.6. Re-deployment	5*						B	B	-	-
22.1.2.7. Reconstitute	5*						B	B	-	-
23. COMPUTER-BASED TRAINING TR: https://www.my.af.mil (under AF IT e-Learning site)										
23.1. Complete 3DXXX 7-skill level IT e-Learning Project Management training track	7						-	-	-	-
24. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO 3D0X2 TR: AFI 36-2233; CFETP 3D0X2										
24.1. AFJQS 3D0X1-230D, Theater Battle Management Core System (Unit Level)	-						-	-	-	-
24.2. AFJQS 3D0X1-230T, Remedy	-						-	-	-	-
25. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO 3DXXX TR: AFI 36-2233; CFETP 3D0X2										
25.1. AFJQS3DXXX-200TBA Training Business Area (TBA) Handbook	5*						-	-	-	-
25.2. AFJQS 3DXXX-200TBB, TBA Power User	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. Certification for OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
25.3. AFJQS 3DXXX-200W, Cyberspace Support Workforce Transformation	-						-	-	-	-
25.4. AFJQS 3CXXX-230GF, Systems Manager Server (SMS)	-						-	-	-	-
25.5. AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook	7						-	-	-	-

Section B - Course Objective List

4. Measurement. Each objective is indicated as follows: W indicates task or subject knowledge which is measured using a written test, PC indicates required task performance which is measured with a performance progress check, and PC/W indicates separate measurement of both knowledge and performance elements using a written test and a progress check.

5. Standard. The standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained.

6. Proficiency Level. Most task performance is taught to the "2b" proficiency level which means the student can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step by step procedures for doing the task.

7. Course Objectives. These objectives are listed in the sequence taught by Block of Instruction. Because the communications career field is ever changing, we are providing a website with a "living" course objective list (COL). As changes are made to the courses they will also be made to the website. Use the following link to get started, and then navigate to the COL by selecting the 81 TRW, 81 TRG, and finally the 336 TRS to locate the COL for the C-CS Programming courses.
<https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=20946>

Section C - Support Materials

8. The following list of support materials is not all-inclusive; however, it covers the most frequently referenced areas. The most current products can be found at the 81 TRSS/TSQ web page, and are available for download from the web site at <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=20946>. Procedures for requesting product development are found in AFI 36-2233.

8.1. Generic AFJQSs/AFQTPs applicable to AFSC 3D0X2:

<u>Publication No.</u>	<u>Pseudo File Code</u>	<u>Publication Title</u>
AFQTP 3DXXX-232A	N/A	Communication and Information Work Center Supervisor's Handbook

Section D - Training Course Index

9. Purpose. This section of the CFETP identifies training courses available for continuation/supplemental training. For information on all formal courses, refer to the Air Force Education and Training Course Announcements (ETCA) database, at <https://etca.randolph.af.mil/>

10. Air Force In-Residence Courses.

<u>Course Number</u>	<u>Course Title</u>	<u>Location</u>
E3AQR3D032 00BA	Cyber Systems Operations Apprentice	Keesler

11. Air University A4/A6 Courses.

For a current listing of Air University A4/6 courses go to <http://www.au.af.mil/au/afiadl/>.

12. Exportable Courses.

For a current list of the available CBT courses refer to *IT e-Learning* at <https://www.my.af.mil/>.

Section E - MAJCOM Unique Requirements

13. There are currently no MAJCOM unique requirements. This area is reserved.